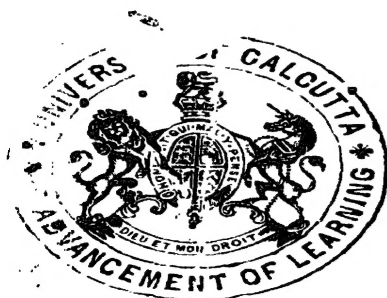


UNIVERSITY OF CALCUTTA
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EXAMINATION PAPERS.

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(INCLUDING THE ALTERNATIVE PAPER).

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FIRST PAPER.—PART (A).

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TRANSLATION FROM BENGALI INTO ENGLISH.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Translate into English any two of the following three passages :—

(a) তাঁহার পিতা সমৃদ্ধি-সম্পন্ন ছিলেন না ; এ নিমিত্ত তাঁহাকে 35
উচিতমত শিক্ষাদান করিতে পারেন নাই । কিন্তু তিনি স্বভাবতঃ সুবোধ
ও সুশীল ছিলেন ; অতএব তিনি কেবল আপন যত্নে ও পরিশ্রমে
সুচারুরূপে শিক্ষিত হইয়া, খ্যাতি ও প্রতিপত্তি লাভ করিয়াছিলেন ।
তিনি আপনার প্রথম বয়সের বৃত্তান্ত এইরূপ লিখিয়াছেন, —“ আমি
দ্বাদশবর্ষ বয়ঃক্রমের সময়ে পাঠশালা পরিত্যাগ করিয়া, পিতার কৃষি-
কার্য-বিষয়ে সহায়তা করিতে আরম্ভ করিলাম । তাঁহার যে আলুর
চাষ ছিল, তাহাতেই আমি পরিশ্রম করিতে প্রবৃত্ত হইলাম । ঐ আলু
আবশ্যকমত বর্দ্ধিত হইলে, আমি মস্তকে করিয়া, বিক্রয়ার্থ বিক্রয়স্থানে
আনয়ন করিতাম । পিতা প্রায় আমার উপর বিক্রয়ের ভারার্ণ
করিতেন, তাহাতে আমার দ্বারা তাঁহার অনেক উপকার হইয়াছিল ।
এইরূপ পরিশ্রম করিয়া, যৎকিঞ্চিৎ কাল অবশিষ্ট থাকিত, তাহা
পুস্তক পাঠ করিয়া যাপন করিতাম । ইহাতে আমার শরীর সুস্থ ও
বলিষ্ঠ হইল এবং অস্তঃকরণ সুখী ও জ্ঞানসম্পন্ন হইতে লাগিল ।
পরিশ্রমের পর যেরূপ সুনিদ্রা উপস্থিত হইত, তাহা আমার অদ্যাপি
হৃদয়ঙ্গম রহিয়াছে । যদি কেহ আমাকে জিজ্ঞাসা করে, কোন্ ব্যক্তি
সর্বাপেক্ষা সুখী ? আমার উত্তর এই,—‘যাহারা আপন হস্তে, মৃত্তিকা-
কর্ষণ করে, ভূমণ্ডলে তাঁহারাই সুখী’ । ”

(b) ১৭৫৫ খ্রীষ্টাব্দে ৫ডিডি হেয়ারের জন্ম হয় । তাঁহার পিতা ঘড়ির 35
কার্য করিতেন । হেয়ারও বড় হইয়া ঐ কার্য শিখিয়া ব্যবসায়
করিবার অভিপ্রায়ে কলিকাতায় আসিলেন । তখন তাঁহার বয়ঃক্রম

২৫ বৎসর মাত্র। অল্প দিনেই তাঁহার অবস্থার উন্নতি হইল। কিন্তু অর্থোপার্জন করিয়া তাঁহার মনের তৃপ্তি হইল না; সেই জন্ত নিজের ব্যবসায় অপরকে দিয়া, তাঁহার মনোমত কার্যে তিনি জীবন উৎসর্গ করিলেন। তৎকালে এদেশে কি বাঙ্গালা, কি ইংরাজি কোন শিক্ষারই বিস্তার ছিল না। দেশে ভাল বিদ্যালয় বা পাঠশালারও প্রতিষ্ঠা হয় নাই। ডেভিড্ হেয়ার বঙ্গের এই অভাবমোচনে ব্রতী হইলেন। বিদ্যা অমূল্য ধন। সেই ধন দান করিয়া হেয়ার মানব-সমাজে অমর হইয়াছেন। তৎকালে এদেশে বালক পাঠ্য ভাল পুস্তক ছিল না। হেয়ারের চেষ্টায় সুপাঠ্য গ্রন্থ প্রচারের নিমিত্ত স্কুলবুক সোসাইটী নামক একটি সমিতি গঠিত হয়। হেয়ার কলিকাতার নানা স্থানে বিদ্যালয় স্থাপন করিয়াছিলেন। পঁচিশ বৎসরকাল হেয়ার বালক-দিগের শিক্ষকতার কার্যে নিযুক্ত ছিলেন। ছাত্রেরা সকলেই তাঁহাকে পিতার মত ভক্তি করিত। তিনি শুধু শিক্ষাদান করিয়াই ক্ষান্ত থাকিতেন না। ছাত্রদিগের পীড়া হইলে অনেক সময় তাহাদের চিকিৎসার ভার তাঁহাকে লইতে হইত।

(c) আপনি বাহুবলে অল্প রাজ্য নিজ ভায়ত্ত করিয়া রাজ্য হইয়াছেন। প্রজারঞ্জন করাই রাজার ধর্ম ও প্রধান কর্তব্যকর্ম। যে রাজা প্রকৃতিপুঞ্জের সুখদমুদ্রি বর্ধনে অসমর্থ, সে রাজা নহে। সম্রাট, আপনি কোন্ ইচ্ছার বশবর্তী হইয়া রাজ্যের বিস্তার সাধন করিতেছেন? আপনি কি মনে করিয়াছেন, এই বিশাল রাজ্য সুশৃঙ্খলতার সহিত শাসন করিবেন? আপনার সুবিস্তৃত রাজ্যে কি সুখ ও শান্তি বিরাজ করিবে? অন্তঃকরণে যদি একরূপ বাসনা স্থান দিয়া থাকেন, তাহা ভ্রম। যেরূপ আপনার রাজ্য বুদ্ধিপ্ৰাপ্ত হইয়াছে, এতাদৃশ সুবিস্তীর্ণ রাজ্যের প্রতিপালন করা সর্বশক্তিমান পুণ্ড্রের বাতিরেকে মানবের অসাধ্য। আবার ইহাও বলি, এই বিশাল রাজ্যের সুশাসন করা যে আপনার সাধ্যাতীত, তাহা আপনি অনুভব করিতে না পারেন, তাহা নহে। আর সুশাসন জন্তই যে রাজ্যবুদ্ধি করিতেছেন তাহাও অতিপ্রায় নহে। তবে ইহার মূলভিত্ত কারণ কি? কেবল দুর্দমনীয় লিপ্সাই ইহার একমাত্র কারণ।

FIRST PAPER.—PART (A).

TRANSLATION FROM HINDI INTO ENGLISH.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Translate any two of the following passages into English :—

(a) व्यय की और बिना सावधानी रखे अधिक धन आने पर भी किसी का अभाव दूर नहीं हो सकता। प्रायः छोटी अवस्था में अधिक व्यय करना अच्छा मालूम पड़ता है। क्योंकि धन कमाने में कितने कष्ट होते हैं इस बात को बच्चे ठीक ठीक नहीं जान सकते और धन न रहने के कारण कितने कष्ट होते हैं यह बात भी उन लोगों को विदित नहीं होती। प्रायः लड़के समझा करते हैं कि किसी वस्तु की आवश्यकता होने पर पिता-माता या और बड़े लोग उसको पूरा करे हींगे। परन्तु धन कमाने के लिये कौन कौन से कठिन परिश्रम उठाने पड़ते हैं इस बात पर लड़के ध्यान नहीं देते। परन्तु यह है अनुचित। लड़कों को समझना चाहिए कि दूसरे के कमाये हुए धन को व्यर्थ व्यय करने का उन्हें अधिकार नहीं है। परन्तु देखते हैं, लड़के अनेक प्रकार से धन को व्यर्थ व्यय करते हैं। अनेक प्रकार के खेल तमाशों में वे बहुत धन खर्च कर दिया करते हैं और अच्छी-अच्छी वस्तुओं को भी नष्ट अथवा बर्बाद करके वे बहुतसा धन नष्ट करते हैं।

35

(b) अजकल जापान में जितना जोर शिक्षा पर है उतना किसी और पर नहीं। उन्हें यह निश्चय हो गया है कि बिना विद्या प्राप्त किये किसी जाति की उन्नति नहीं हो सकती। विद्या बिना उन्नति की चेष्टा करना बालू पर महल बनाना है। इस देश में शिक्षा प्रणाली अमेरिका के ढंग पर है। वर्तमान में कोई ऐसा वर्ष नहीं जाता जिसमें कुछ न कुछ नया सुधार न होता हो। स्कूल में लड़कों को सदाचरण का पाठ दिया जाता है और उनकी शारीरिक वृद्धि पर भी ध्यान रखा जाता है। कारण यह है कि जब तक मनुष्य के तन और मन दोनों अच्छे प्रकार उन्नत न हों तब तक उसकी यथार्थ

35

उन्नति नहीं है। सब स्कूलों में सदाचरण, व्यायाम, पढ़ना और लिखना सिखाया जाता है। मेहनत मजदूरी करनेवालों के लिये उनकी आवश्यकता के अनुसार शिक्षा का प्रबन्ध है। स्त्री शिक्षा के लिये सन १८७१ ईस्वी में इस प्रकार राज आज़ा निकली थी—
“उन माताओं का शिक्षित होना कितना जरूरी है जिनकी सन्तान पर देशोन्नति निर्भर है और जिनकी शिक्षा के लिये इतनी चेष्टा हो रही है। यह बात माताओं के ही हाथ में है कि बच्चों के हृदयों में विद्या का पूर्ण अनुराग उत्पन्न कर दें”।

(c) जिस समय तीर्थरामजी एन्ट्रेंस पास करके पंजाब की राजधानी लाहौर में पहुँचे थे उस समय लाहौर की आज कल की सी हालत नहीं थी। आज कल लाहौर में जो पाँच कः कौलेज दिखलाई पड़ते हैं वे उस समय नहीं थे। उस समय दयानन्द एंग्लो वेदिक कौलेज स्थापित तो हो चुका था तथापि आज कल की भाँति विख्यात नहीं हुआ था। तीर्थरामजी क्रिश्चियन कौलेज में पढ़ने लगे। कौलेज में पढ़ते समय जैसे अनेक विद्यार्थी नित्य नये फैशन के शिकार बन जाते हैं यह बात तीर्थरामजी में नहीं थी। वे बहुतही सादे लिबास में रहते थे। उनकी बोलचाल बहुत सीधी सादी थी। क्रिश्चियन कौलेज से उन्होंने न बी० ए० की परीक्षा उत्तीर्ण की थी। इस परीक्षा में वे पंजाब विश्वविद्यालय में प्रथम रहे थे जिस से उन्हें ६० रुपये मासिक छात्रवृत्ति मिलती थी। इसमें से वे अपना बहुत कम खर्च करते थे। बाकी रुपया अपने घर भेज देते थे अथवा अपने गुरुजी की आवश्यकताओं के दूर करने में लगाते थे। तीर्थरामजी का गणित में विशेष अनुराग था। गर्वर्न्मट कौलेज में दो वर्ष पढ़कर एम० ए० भी पास कर लिया।

FIRST PAPER.—PART (A).

TRANSLATION FROM URDU INTO ENGLISH.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Translate into English any two of the following passages:—

(a) ایک شاعر ایک دولتمند کے پاس گیا اور اس کی بہت 35
تعریفیں کیں - اس امیر آدمی نے خوش ہو کر کہا کہ اس
وقت میرے پاس روپے تو نہیں ہیں - ہاں غلہ بہت کچھ
ہے اگر تم کل آؤ تو تمہیں کچھ غلہ دوں گا - شاعر گھر چلا گیا
اور دوسرے روز صبح سویرے اس مالدار کے گھر آ موجود ہوا -
مالدار نے پوچھا کیوں آئے - اس نے جواب دیا آپ نے کچھ
غلہ دینے کا وعدہ کیا تھا اسی غرض سے میں اس وقت آیا
ہوں - دولتمند نے جواب دیا تم تو کاٹھ کے آلو ہو - تم نے
مجھے باتوں سے خوش کیا تھا میں نے بھی تمہیں باتوں سے
خوش کر دیا - اب غلہ میں تمہیں کیوں دینے لگا - شاعر
اپنا سامان لے کر چلا گیا *

(b) ایک بخیل نے اپنے ایک دوست سے کہا میرے پاس 35
ہزار روپے ہیں جنہیں میں شہر کے باہر دفن کر دینا چاہتا
ہوں اور یہہ بعید تمہارے سوا میں کسی اور سے نہ کہوں گا -
غرض وہ دونو شہر کے باہر گئے اور ان روپوں کو ایک درخت
کے نیچے گاڑ دیا - کچھ دنوں بعد وہ بخیل تنہا اس درخت
کے پاس گیا مگر نقد کا اسے کوئی پتا نہ ملا - اس نے اپنے
جب میں کہا اس دوست کے سوا اور کسی نے نہیں لیا

لیکن اگر میں اس سے پوچھوں گا تو وہ ہرگز اقرار نہ کرے گا۔ اس لئے وہ اس دوست کے گھر گیا اور بولا بہت سے اور روپے میرے ہاتھ لگے ہیں۔ اُنہیں بھی اسی جگہ دن کر دینا چاہتا ہوں۔ اگر تم کل آؤ تو ہم دونوں وہاں ساتھ جائیں گے۔ اتنی بڑی رقم کا لالچ کر کے دوست پہلے روپے اس جگہ پہر گار آیا۔ بغیل دوسرے دن جو وہاں تنہا گیا تو اس کو اس کے روپے مل گئے۔ وہ اپنی تدبیر پر ناز کرنے لگا اور اس کے بعد پہر کبھی کسی دوست پر بھروسہ نہ کیا *

(c) ایک شخص کے مکان سے روپوں کا ایک تھیلا چوری کیا۔ مالک نے شہر کے قاضی صاحب کو اس بات کی اطلاع دی۔ قاضی صاحب نے فوراً مکان کے سارے رهنے والوں کو اپنے روبرو بلایا۔ ہر چند تحقیقات کی مگر چور کا پتا نہ لگا۔ آخر ان لوگوں سے کہا میں تم میں سے ہر ایک کو ایک ایک ہاتھ لمبی چھڑی دیتا ہوں جو شخص چور ہے اس کی لکڑی اوزن کی لکڑیوں سے ایک انگل بڑی ہو جائیگی۔ یہ کہہ کر قاضی صاحب نے ہر ایک کو ایک ایک چھڑی دیدی۔ انہیں رخصت کر دیا۔ رات کے وقت چور نے در کر اپنے دل میں کہا اگر میں اپنی چھڑی میں سے ایک انگل کاٹ ڈالوں تو صبح کو اوزن کی چھڑیوں کے برابر ہوگی۔ یہ خیال کر کے اس نے اپنی چھڑی میں سے ایک انگل کاٹ ڈالا۔ دوسرے دن اوزن کے ساتھ قاضی کے سامنے حاضر ہوا۔ قاضی نے چھڑیوں کا ملاحظہ کر کے اپنی حکمت سے چور کا پتا لگا لیا *

FIRST PAPER.—PART (A).

TRANSLATION FROM ASSAMESE INTO ENGLISH.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate any two of the following passages into English :—

(a) মানুহৰ নিচিনাকৈ গছ-গছনিবো প্ৰাণ আছে। আমাৰ দৰে 35
সিহঁতেও সুখ দুখ অনুভৱ কৰিব পাৰে, সেইটো কথা তোমালোকে
জানানে? কেৱল সেয়ে নহয় আমাৰ দৰে সিহঁতৰ টোপনিও আছে।
তোমালোকে ভাবিব পাৰা যে গছ নিতৌ একে ঠাইতে থিয় হৈ থাকে।
ইফালে সিফালে লৰচৰ কৰিব নোৱাৰে সিহঁতৰ নো আকৌ কিহৰ
টোপনি? বিজ্ঞান শাস্ত্ৰৰ পণ্ডিত সকলে সিহঁতৰো টোপনি আছে বুলি
প্ৰমাণ কৰি দেখুৱাইছে। গছেও বাতি শোৱে; আমিহে তাৰ গম
নোওঁ। কিছু মানুহ গছৰ টোপনিৰ কথা সহজে বুজিব পাৰে।
সন্ধ্যা লগা মাত্ৰেই সিহঁতৰ পাত বোৰ জাপ যায়। তাৰ পৰা সিহঁত
যে শোৱে তাক সহজে বুজিব পাৰি।

(b) মহেশ্বৰনামে এটি লৰা আছিল, তেওঁ চতুৰ্থ শ্ৰেণীতে পঢ়িছিল। 35
তেওঁ এদিন গধূলি নৈৰ কাষৰ বাটেৰে ফুৰিবলৈ যাওঁতে দেখা পালে,
এজোপা গছৰ তলত এটি মানুহ পৰি আছে। পানীৰ কাৰণে সি
হাঁ কৰি মুখ মেলি আছে। মহেশ্বৰক দেখা পাই সি লাহে লাহে কলে
“পানী ঝাওঁ”। তেওঁ সেই মানুহটিক দেখি বৰ দুখ পালে। পাচে
কেনেকৈ পানী খুৱাব ভাবি চাই, নৈৰ পৰা বগা কাপোৰখন তিয়াই
পানী আননী গছৰ পাতত চেপি চেপি গোট খুৱাই নৰিয়াব মুৰত দিলে।
তাৰ পিচত মুঠো বজাৰৰ ফাললৈ গই এখন বেতৰ খাট আক
ছুটা কুলি আনি নৰিয়া পৰা মানুহটোক তাতে শুৱাই আচপতাললৈ
লৈ গল। তেওঁৰ পিতাকে “বাতি হল, মহেশ্বৰ পোৱাহি নাই
কিয়” বুলি ভাবি থাকোঁতেই তেওঁ আহি পিতাকৰ আগত সকলো
কথা কলে। বাপেকেও মহেশ্বৰক শলাগি আগলৈকো এনে ভাল কাম
কৰিবলৈ উৎসাহ বঢ়াই দিলে।

(c) ৰামসিংহে কেউপোনে পৰাস্ত হৈ লাজ আৰু অপমানত অসম 35
জয় কৰাৰ আশা পৰিত্যাগ কৰি উটীয়াই গল। ৰামসিংহই আমাৰ
সৈন্যৰ সাহ-বল আৰু কাৰ্য্য কৌশল দেখি প্ৰশংসা কৰি গল, বোলে,
“প্ৰত্যেক অসমীয়া সেনাই নাও বাব পাৰে, কাঁড় মাৰিব পাৰে;

માટિ ખાનિવ પાવે, આંક તોપ આંક હિલે માંવિવ પાવે । એનેકુરા
નિપૂણ સેના મહે ભાવતવર્વર્ષ કોનો ઠાહેત. દેશા નાહિલો । ” એ
યુદ્ધ પાંચત અસમર સીમા માનાંહાં મુથલેકે વહલાઈ વરફુકને ઠક
આંક ઘાટ પાતિ તાત વહત સેના થે શુરાહાંટાં ઉત્તિ આહિલ :
૧૮૨૨ શક વા ૧૭૧૦ ઔદીન્દત એ યુદ્ધ શેષ હય ।

FIRST PAPER.—PART (A).

TRANSLATION FROM GUJARATI INTO ENGLISH.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

Translate any two of the following passages into English:—

(a) માણસો બધા ઉતાવળમાં આમતેમ દોડતા હતા . 35

પણ કોઈના મહે ઉપર સહેજ પણ આનંદ નહોતો . રસ્તામાં
વસ્તિ છતાં પણ શહેર જાણે તબાયલું હોય તમે આભાસ
થતો હતો . મને કાંઈ સુખ પડતી નહોતી અને મહારા મનના
ઉત્સાહ અને આનંદ પણ જ્યાં માંડ્યા . એટલામાં મને
ખ્યાલ આવ્યો કે એટલાએ ઉપર, રસ્તાએમાં કે થોડા-
નામાં મહે એક પણ બીજાં જોયું નથી એટલુંજ નહીં પણ
અત્યાર સુધીમાં કોઈ સ્ત્રી પણ મહારા જોવામાં આવી
નહોતી . આ વિચારથી મહારા મનને જાણે આઘાત થયો .
આ વાત મને ભ્રમ જેવીજ લાગી . હું એકદમ અટકી ગયો
અને જે જે જગ્યાએ થઈને આવ્યો હતો તે બધી જગ્યા
ઉપર જોએલા મનુષ્યો અંબધી વિચાર કરવા માંડ્યા પણ
કોઈ ઠેકાણે સ્ત્રીનો મહેરો જોયેલો યાદ આવ્યો નહીં . નિશાળે
જતી આનંદથી કુદતી કોઈ કન્યા પણ મહારા જોવામાં
આવી નહોતી .

(b) જે દેશમાં સ્ત્રીઓની સ્થિતિ ખરાબ હોય તે દેશમાં પ્રજાનું જીવન કોઈ રીતે સુધરી શકે તેમ નથી. સ્ત્રીઓ પુરૂષની સાથે જીવનનો બોલો ઉંચકે છે અને તેમના આગળ વધવાના પ્રયત્ને માં આશા અને દિલાસો એ બંને પુરા પાડી મદદ કરે છે. માતાના બોળામાં મળેલું જ્ઞાન એ સર્વથી વધારે ઉત્તમ જ્ઞાન છે અને જ્યાં સુધી ન્હાની ઉમરની, અજ્ઞાન, પડદામાં, બંધ રખાયલી, અને બધી રીતે પછાત પડેલી માતાઓ બાળકોને ઉછેરે છે ત્યાં સુધી તે બાળકોમાં કોઈ જાતનું દૈવત આવી શકેજ નહીં. અધ્યાત્મ સમાજના કઠંગા નિયમો પ્રમાણે એક બાળક હજી બાર માસનું થયું નહીં ત્યાં તે બીજું બાળક જણવાનો વખત આવે છે અને પહેલા બાળકને આપવાને દુધનું ટીપું પણ નહોત્ય ત્યાં તે બીજા બે બાળકોનું પુરૂં કરવાના બોલમાં સ્ત્રીઓ કચડાઈ જાય છે. સ્ત્રીઓના સંબંધમાં નીચેનું નયન યાદ રાખવા જેવું છે.

35

“કહે નેપોલીયન” દેશને કરવા આખાદાન

સરળ રીત તો એજ છે કે દૈવ અબળાને ધ્યાન.”

(c) સ્વાર્થ જીવન ગાળનારાઓને હું ‘યાદ આપું છું કે બીજા માણસોની મદદ શિવાય તેમનાથી એક ઘડી પણ જીવી શકાય નહીં. તેમનો ખોરાક દૂરના ખેતરમાં કોઈની મહેનતથી ઉત્પન્ન થયો છે. તેમનાં પહેરવાનાં કપડાં, પગ ઉપરના બુટ વિગેરે પણ અન્ય મનુષ્યોના પરસેવાથી પેદા થયેલા છે. તેમનાં ન્હાણપણથી અથાગ મહેનત લઈને માતાપિતાએ જ્યારે તેઓ અશક્ત હતા ત્યારે પાળી પોષી

35

તેમને મ્હોટા કર્યા છે . જગતની જાણવા જેવી ભોગવવા જેવી જે જે વસ્તુઓ છે તે સર્વ કોઇને કોઇ સાચવીને તેમને માટે તૈયાર કરે છે . ખીજા મનુષ્યોના પ્રયાસથી થતો લાભ એમને એમ પચાવી પાડવાનો કોઇને હુક નથી અને જો એવી સ્વાર્થિ ઇચ્છાઓ કોઇના મનમાં ઉભી થાય તો ઇશ્વરને ત્યાં તેમનો ન્યાય થયા વગર રહેશે નહીં . એથી ઉલટું જો આપણે આપણા પોતાના કાર્યમાં દક્ષતા બતાવીને સારો દાખલો બેસાડીએ તો ખીજાઓ પણ પોતાનું કાર્ય ઠીક કરતાં શીખશે અને તેને લીધે આપણને તેઓની તરફથી ઉત્પન્ન થતી વસ્તુઓ સારી જાતની અને સારા જથ્થામાં મળશે .

FIRST PAPER.—PART (A).

TRANSLATION FROM MARATHI INTO ENGLISH.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Translate any two of the following three passages into English :—

(a) ગ્રામિણોના બાદશાહ દ્વારા જોષેપ યાલા વેણાંત કરુન આપણા રાજ્યાંત હિંદુઓની મોઠી હોસ અસે . અશા રીતીને અનેક અનાય ત્યાને દૂર કોલે હોતે . એકદાં તો અસાચ હિંદત અસતાં એકે ઢિકાણીં ત્યાલા એક દંદાદારા વર્ષાંચા મુલગા મીક માગતાંના આઠલ્લા . બાદશાહાચા સેનાંત પૂર્વીં એક મોટા શૂર સરદાર હોતા, ત્યાલા લઠાઈંત જલ્મ લાગૂન તો ઘરોં રાહિલ્યામુલેં ત્યાલા કાંઈં વાર્ષિક વેતન વેચ્યાંચા ઠરાવ ખાલા હોતા . પુઠેં તો સરદાર વારલ્યાવર અર્થાંત નિયમાપ્રમાણેં હેં પેશન વંદ. કરણાંત આલેં, ત્યામુલેં ત્યા સરદારાચા વાયકામુલાંની મોઠી ઓઠાતાળ હોજં લાગલી . પુઠેં સરદારાચી પત્ની. આજારી પડલી . પણ ઔષધ-

पाण्याला पैसे नसल्यामुळे तिचा आजार हटेना. धाकटों दोन मुलें तिच्या शुभ्रप्रेष बसत, आणि योगला मुलगा निवांहासाठीं भीक मागत फिरे. हो हकीगत ऐकून बाह्यशहाला फार वाईट वाटलें. आणि त्या मुलाला त्याचा पत्ता विचारून आणि बॅरच द्रव्य देऊन तो पुढें चालला.

(b) एका तव्यांत तीन मासे होता. पहिला शहाणा होता, दुसराही साधारण व्यवहार चतुर होता. पण तिसरा माज मूर्ख होता. एका कोव्याने हे मासे पाहिले, आणि त्यांना धरण्यासाठीं तो आपलें जाळें आणावयास घर्गें गेला. आतां आपण या तव्यांत रहाणें ठीक नाहीं, असा विचार करून शहाणा मासा, त्या तव्यांतून एक प्रवाह निघून जवळच्या नदीस मिळत होता त्या प्रवाहांत शिरला. दुसरे मासे स्वस्थ बसले. इकडे कोव्याने आपलें जाळें आणून तव्यांत ठाकलें. तेव्हां आपणही इथें रहाणें थोकाचें आहे असें जाणून दुसरा मासा पाण्याच्या अगदीं पृष्ठावर तरंगत त्या प्रवाहांत शिरला. तो गेला असावा असें समजून कोव्याने त्याच्याकडेही दुर्लक्ष केलें. विचारा तिसरा मासा माज थोड्याच वेळांत पकडून कोव्याने खावयास गेला.

(c) मेरी लॅंब इवें नांव घेतलें कौं, तिचा भाऊ चार्ल्स लॅंब याची आठवण होते. एका प्रसिद्ध ग्रंथकर्त्रांने म्हटले आहे कौं, इतर कौणत्याही नात्यापेक्षां बंधुभगिनीचें नातें निर्दुतुक आणि निर्मळ आनंद देणारे आहे. या वचनाच्या सरुर्णनार्थ बरीच प्रसिद्ध उदाहरणें काढून दाखवितां येतील; पण त्या सर्वांत चार्ल्स लॅंब आणि मेरी लॅंब यांचें उदाहरण अत्यंत श्रेष्ठ दर्ज्याचे होईल. जेव्हां कोणी बंधुभगिनी कांहीं अज्ञात असामान्य आकर्षणानें—प्रेमाकर्षणानें एकत्र आकर्षिलीं जातात तेव्हां स्वाभाविकपणेच बहीण भावासाठीं आपल्या वैयक्तिक सर्व सुखाचा व्यय करिते. त्याच्या सुखावांचून तिला थिय रहत नाहीं, त्याच्या आनंदावाचून तिला आनंद भासत नाहीं. यूरोपीय वातावरणांत तर अशीं उदाहरणें आढळून आलीं आहेत, कौं, अशा बहिणी बंधुप्रेमांत अंतराय उपस्थित होऊं नये म्हणून विवाहही न करितां आजन्म ब्रह्मचर्यानें राहिल्या आहेत.

FIRST PAPER.—PART (A).

TRANSLATION FROM MALAYALAM INTO ENGLISH.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Translate any two of the following passages into English:—

(a) സത്യവാൻ—“കണ്ടുവെന്നു എന്നിങ്ങനെ 35
നന്മെല്ലാം കേവലം സ്വപ്നമൊ അല്ല വാസ്തവമൊ
എന്നറിയാത്തു മനസ്സിനു വ്യഥമുണ്ടു്.”

സാവിത്രി ഇതു കേട്ടു, “സൂര്യൻ അസ്തമിച്ചു വള-
രെ നേരമായി. ദുഷ്ടഗുണങ്ങൾ ഈ തേടിപ്പോയെ
ചുറ്റിത്തരിയുന്നു.”

സത്യവാൻ, “കുരിശും എങ്ങും പർന്നു അരണ്യ-
ത്തിന്റെ സ്വാഭാവികമായ ഭയങ്കരത ചിത്രീ-
കരിച്ചിരിക്കുന്നു. മാറ്റം തിരിച്ചറിവാൻ പ്രയാസമാ-
യി പന്നിരിക്കയാൽ തിരിച്ചു പുറപ്പെട്ടു പോകയെ-
ന്നതു ഇപ്പോൾ അസാധ്യം.”

സാവിത്രി, “ഇന്നു പകൽ കാട്ടുതീയുണ്ടായതീനാൽ
ആ മരം പെട്ടു തീക്കിടാതെ നില്ക്കുന്നതും മറ്റുവായും
പിശുപോൾ തീ മിന്നുന്നതും കർക്ക. ഞാൻ അവി-
ടെ പോയി അല്പം തീക്കനൽ എടുത്തു കൊണ്ടു വന്നു
ഈ വിറകു കത്തിക്കും. മനസ്സിനു യാതൊരു പി-
ഡയും ഉണ്ടായിരിക്കരുതു. നിങ്ങളുടെ ഇനിയും നല്ല
സുപ്തമായില്ലെന്നു കാണുന്നതിനാൽ യാത്ര ഈ

അസമയത്തു വേണ്ടെന്നു വെക്കയാകുന്നു ഉത്തമം. രാത്രി ഇവിടെ കഴിച്ചു പ്രഭാതത്തിൽ നമുക്കു പുറപ്പെട്ടു പോകാം.”

സത്യവാൻ, “കഠിനമായ തലനോവു കേവലം ശമിക്കയും കാലിനും കൈയ്ക്കും ശക്തി തിരികെ ഉണ്ടായിരിക്കയും ചെയ്യുന്നതിനാൽ നിന്റെ സഹായത്തോടു കൂടി അമ്മയച്ഛന്മാരെ ഉടനെ ചെന്നു കാണാൻ ആശ വളരുന്നു.”

(b) സിദ്ധോണിലെ വടക്കൻ പ്രദേശത്തു്തും 35
“ശുശ്രൂഷാപരിഷ്കാരാലും മറ്റും ഇപ്പോഴും പലരുടെയും ശ്രദ്ധയെ ആകർഷിച്ചു കൊണ്ടിരിക്കുന്നതുമായ “അനഡ്പുരം” എന്ന സ്ഥലം ഒരു കാലത്തു ബുദ്ധമതക്കാരുടെ ഒരു പ്രധാന സ്ഥലമായിരുന്നു. ഇവിടെ പഴയകാലത്തു പണി കഴിപ്പിച്ചിട്ടുള്ള പല വലിയ കെട്ടിടങ്ങളുടെയും ആവശിഷ്ടങ്ങൾ ഇപ്പോഴും കാണാനുണ്ടു്. ഇവയിൽ ഒട്ടു അപ്രധാനമല്ലാത്ത ഒന്നാണു വലിയ പിച്ചു കൊട്ടാരം. പഴയ കാലത്തു ഈ വലിയ കെട്ടിടം സ്ഥാപിച്ചിരുന്ന തൂണുകൾ മാത്രമേ ഇപ്പോൾ ഇവിടെ നില്ക്കൂ. ഹെറക്കല്ലുകളിന്മേൽ പിച്ചു പൊതിഞ്ഞതായ ആയിരത്തിയറുനൂറു തൂണുകൾ ഇപ്പോഴും യാതൊരു കുറവും കൂടാതെ സ്ഥിതി ചെയ്യുന്നുണ്ടു്. ഈ തൂണുകളിന്മേൽ ഒൻപതു നിലകളുള്ള ഒരു കൊട്ടാരം ഉണ്ടായിരുന്നു. പകൽ സമയം നടക്കുന്നതിനോ ചുറ്റും

രാത്രി ഉറങ്ങുന്നതിനൊ ആയി ഇതിന്ന ചുറ്റപാടും ഒരു കോലായും ഉണ്ടായിരുന്നതായി പറയപ്പെടുന്നു.

(c) അറങ്ങുസിംബിന്റെ സൈന്യം രൂപനഗര- 50 ന്റെ പട്ടണത്തിരികയുണയ്ക്കപ്പെട്ടു. ഇവർ ഇങ്ങിനെ പട്ടണത്തു കിടന്നിട്ടു ഇല്ലോൾ ഏഴുമാസം കഴിഞ്ഞിരിക്കുന്നു. തന്റെ മിത്രങ്ങളായ കർമ്മിയ രാജാക്കന്മാർ വിജയസിങ്ങു അയച്ചിട്ടുള്ള ഏഴുത്തിൻ പ്രകാരം ആരും തന്റെ സഹായത്തിനായി ഇതുവരെയും വന്നു ചേർന്നിരുന്നില്ല. വിജയസിങ്ങിന്റെ സൈന്യം യാതൊന്നുകൊണ്ടും ദഗ്ഗോത്സാഹരകാതെ കോട്ട കാത്തു രക്ഷിച്ചു കൊണ്ടിരുന്നു. ഇടക്കിടക്കു ഇവരും ശത്രുസൈന്യങ്ങളുമായി ചില പോരാട്ടങ്ങളും ഉണ്ടാകാതിരുന്നിട്ടില്ല. ഇവയിൽവന്നിലും ഇവർ ഒട്ടും വിട്ടുകൊടുത്തിട്ടില്ല. എങ്കിലും എത്രനാളാണ് ഇങ്ങിനെ കിടക്കുന്നത. അതിനാൽ ഭാവിയിൽ പററി ആക്കം ഒന്നും പറയാൻ റിപ്പത്തിയില്ലായിരുന്നു ഈ കാലമെല്ലാം വിമലാ ദേവിയും ഓരോ പ്രയാസപ്പെട്ട ജോലികളിൽ ഏപ്പെട്ടു കൊണ്ടിരുന്നതിനാൽ നന്നാ ക്ഷീണിച്ചിരുന്നു

FIRST PAPER.—PART (A).

TRANSLATION FROM TELUGU INTO ENGLISH.

Translate into English *any two* of the following passages :—

(a) ప్రజాసౌఖ్యమే పరమే పరమార్థేశముగా రాజ్యమును 35
 బాలించిన లోకవంశ్యులగు చక్రవర్తులలో నక్కర్ అగ్రగణ్యుడనియే
 చెప్పవలసియున్నది, అక్కర్ యొక్క రాజ్యతంత్రమును సవిస్తరముగా
 వర్ణించుచు నాచరి మిత్రుండు, పద్మాం సుండును అగు అబూ ఫజల్
 అనువాండోకగ్రంథము వ్రాసియుంచినాండు, ఆగ్రంథమునకు 'విశే
 అక్కర్' అనిపేరు, అక్కర్ యొక్క యైశ్వర్యమును, ప్రజాప్రియము,
 సాధుస్వభావమును, రాజకార్యకౌశలమును, ప్రయోజకత్వమును నా
 గ్రంథము వలనబడెలియును. 'లోకులయాచార్యసహాయుల సంస్కరించు
 వ్యవసాయము నభివృద్ధిచేయుట, వైద్యమును నిరర్ రాజ్యాంగములను
 సుశ్లక్షణస్థితియు గానుండుట, లోకోపయోగకరములైన కార్యములం
 జేసి జనులను సుమారులై పెండుట, ఆదాయమును జక్కిరిం
 బటిచి ముక్త్యము చేయుట, మనునవి ప్రజలసౌఖ్యమునకై రాజు
 చేయవలసిన పనులని యచిలును నోప్ప కొనవలయును, ఈసంగతులను
 నుజ్జవక రాజ్యము చేసినరాజు వైధివశాతియగుననుటకు సంభవములేదు.' అని యాగ్రంథానిని వ్రాయుంబడినది, అక్కర్ చరిత్రయం
 తయు యావాక్యములకు లక్ష్యభూతము, ఈతని రాజ్యములోభూతిస
 న్నునుగుఱించి చేయంబడిన నిబంధనల విషయమైయుండు వ్రాయంబడిన
 ను, పన్నులకులమీంద పశేషముగాంబడి యొకరిమీంద దక్కువ
 పడక యందరికి నమానముగా నుండునట్లు చేయుటయని రాజ్యవ్యవ
 స్థాలోని యొకవిశేషము, ఇండు గ్రంథములులేని సంకల్పములోంబన్న
 రాంబట్టు కోనవలనని శాసించెను, పూర్వమునుండి జరుగుచు లోకు
 లకు పాదకరముగానున్న చిల్లకన్ను లనేకములు తీసివేసెను, వర్తక
 ములో మోసములేకుండ తూనికెలను కొల్లలను సినలు పఱిచెను,
 అంతకుంబూర్వము రాజకీయాధికారులకుం బ్రజలయొద్దనుండి కోన్ని
 బహుశతులు దొరకుచుండెను, వానినాపి యధికారులకునె లజితముప
 నిగ్గయించెను, అందుచేం బ్రజలకు గలుగుపాదలు తొలగెను.

(b) నాయనా! నీవునేనని పలికవంజాలు, విశేషము లనావశ్యక- 35

ములు, నాయభిప్రాయ మేమో చెప్పెదను, సృష్టిస్థితిలయకారణం-
డును, సర్వజగన్ని యామకుండును, సాధుగతుకుండును, క్రూరుగతుకుం-
డును, సర్వస్వతంత్రశక్తిసంపన్నుండును, కారణబంధశూన్యుండును,
సర్వవ్యాప్తిండును, సచ్చిదానందనయస్వరూపుండును, స్వేచ్ఛాను
సారవర్తనుండును, కారణబంధశూన్యుండును, సర్వప్రాణ్యంతరసాక్షి
భూతుండును, పాపనాశనావసరానుసా విరచితభూలోకావతారుం
డును, స్తోత్రప్రియుండును, బ్రాహ్మణప్రియుండును, వైదికకర్మ
ప్రియుండును, సర్వవంగలగుణసమంజనుండు నగుభగవంతుం డెక్క-
డమో యున్నాండును. సరిక సరినికీ నావైనిష్ఠ మేయని యొకండు,
నావైంగోపమని మఱియొకండు, నావైర్ని దటస్సుండని మఱియొకండు
నావైదికకర్మములచేతం జెవులు నులిపియాత నిని స్వాధీనపఱులునని
మఱియొకండు, నూరెగిరి పోవునట్లు సాగ్ధింవిపరము లిచ్చువఱకు
నొరుకబుచ్చుకొనినకాశులు విడువ నని మఱియొకండు, పాగ్ధన-
ములకులొంగకపోయినమెడల భవమునకు గిరగిరందిరిగిళింగు నః
మఱియొకండు, నెను బ్రాహ్మణుండును, దైవమునకుంగోపము వచ్చి
నవైన నాపక్క మీందిగోనుయూడదని మఱియొకండు దైవమునకురే
గడు పునిండు గల్లుపోసినయడలందలకపిండివైచినకుక్కవల నాగు-
మ్ముములొంగుపునడియుండు నని మఱియొకండు స్వప్న మునమాపంచపా
ళిలోనికి వచ్చినానులకయంచుమై వైంగాల్తవై పునం గూర్చుండిపోతో
యాటలాడి నవ్వి, పాడి పరిహాసములు నీపి, ఓడకనిప్పుననాతోగూడ
స్వగంగాలంకలలోంబుట్టిన పొగాకుచుట్టంగాల్చిముమియ నది మాయ
సలిమేనమత్త నెత్తి వైంభడనామె కఱ్ఱందీసికొనియొకటి వడ్డించుట-
తోడనేకాలుచున్న చుట్టచూరులొంచెట్టికాట కొలదిదూకినాండని
మఱియొకండు, తనయెడలోని మూలం జెఱిపించినాయుండ నెత్తివైగ
గిడిం జేయించినాండని—

(c) సకలవిద్యలసారమును, రాజ్యనిర్మాణార్హత్యమును, లౌకిక 35
వైదికవ్యవహారనిపుణతయు, స్వభర్తృరక్షయు స్వదేశస్వజనభక్తియు,

ఆనుపమేయవైరాగ్యమును ఏకీభవించి మంథవపద్యాగజ్యోత్స్వరూపమున నవతరించ నని చెప్పటకు సందేహములేదు, సవ్యాపమునకుం బూర్వమి సత్పురుషునకు మంథవాచార్యులనివేను, తురీయాశ్రమయస్వీకరించి శృంగేరిసేవమునధిష్ఠించిన తరువాత నీలగిర్యంమ్యనకు విద్యాగణ్యులని వేను, ఈయాదవులు ప్రాహ్లాదాలు, వీరినియజుర్వేదము, బోధాయన- నూత్రము భారద్వాజగోత్రము, వీరియింటికి వేనుసాయణవారు, తల్లివేను శ్రీమతి, తండ్రివేను మాయణుండు, ఇదినికి సాయణభోగవాగులను సోదరులిద్దఱుండిరి, వీరాంగులనియు నిమిగులనియుంగొంపలున్నానియు న్నారు, కానియాంధ్రప్రాహ్లాదాలలో బోధాయననూత్రులులేదు, యాపున యాథవాచార్యులవారాంగులు ఇచ్చి యానిశ్చయము, వీరిధిష్ఠించిన శృంగేరిసేవము మింగిల్లనూయన శ్రీనచ్చిదానంద శివాభిషేక- స్పృహ భాగతీస్వాములవారును ఇతిమంగళము, మఱీకినాంటివారి, మంథవాచార్యులారు ప్రథమ హరిహర, యక్కిలారు, ద్వితీయ హరి- హరరాజుల కాలములోహరిహరయత్రిగిసహితబోధకుండు గనుడను. ఇదిని రెమ్మండకు సాయణాచార్యులును హరిహరరాజుముక్కయన్న కుమారుండకు సంగనరాజునొద్దయత్రి గానుండెను, హరిహరముక్క- రాములును స్వరాజ్య సంస్థాపనమునకుంబారికొల్పి యనన్య సాయాన్వ వైభవధూషితంబగు విజయ నగర సామ్రాజ్యమును నూతనయుగానిర్మించిన శ్రేయస్సంతము మంథవాచార్యులందఱు మని నోక్కినక్కణింపవచ్చును, హరిహరముక్కరాయలు వేరునకుమార్త్రము పంజాబుగా మండినకును, రాజ్యభాగములము నాశ్రమస్వీకారమునకుం బూర్వమును తరువాతను మంథవపద్యాగజ్యోతే వహించినయు వైతిహ్యముకలదు, మత్యాశ్రమ స్వీకారమువేవైగిక సౌఖ్యములందెంతయును విచ్ఛలేనివారయ్యనా దేశయంతయు ప్లేచ్చులవలన సర్వవికమగుటయు శ్రాతస్తాకర్షయులన్ని యుపశించుటయుంజూచి స్వదేశస్వమతములను ఉద్ధరింపుటకై కేవలనిగ మేక్షబుద్ధితోని మహాసభావుండు విజయనగరమును హిందుసామ్రాజ్య- మును నిర్మించుకొని తండ ద్వితీయ మహాపురుషుండని చెప్పవలసియున్నది,

FIRST PAPER.—PART (A).

TRANSLATION FROM TAMIL INTO ENGLISH.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Translate into English any two of the following passages :—

(a) பண்டைக் காலத்தில் குமரன் என்னும் பரிசுத் 35
தபன் ஒருவன் இருந்தான். அவன் அக்காலத்தில் இருந்
தசக்காவத்திகள் அனைவரிடும் போட்டி வைன் : என்
தேருக்கு இல்லையென்பவன் : அக்காலம் அமைத்
தோரை அன்புடன் ஆதரிப்பவன் : கல்விக்கல்விக்கரை
கண்டவன், இந்தக் குமரன் பக்கவாத்தியின் கற்புரை நற்
செய்கைகளையும் கல்வியறிவைகளையும் கேள்விப்பட்ட பாலா
லப்பலர், அவன்மீது அந்நவாயான கவிகளைப்படிக்கொ
ன்றவருவர்பன், அவன் கல்வியின் அந்நவாயநோக்கித்
தக்கவாறு பரிசு அளிப்பான், கற்புரைக்கற்றோர் கடிந்
றுவர் என்றவடிதான் தேவரும் புலவர் பலர் பாவலனைப்
புகழ்த்து பரிசு வந்தனர். அவர்களுக்கெல்லாம் மண்ணன்
பெருநகரிக் கிவந்தவந்தான். குமரனுக்குப் பகைதான்
ஒருவன் உண்டு. அவன் சுற்றி நான் கல்வியறிவு இல்லாத
வன் : இக்கேதபிக்கு என்னவாம் சபலன் : முருக்கரை
முருக்கரென்றவர் : என்றவடி. அவனைப் பதாபூழிப்பலர்
மொழிந்தாக்கொண்டு இழைப்பார்கள். அந்தந்தநாள் புகள்
அவனுக்கு நான் தேவரும் அப்போதனை செய்ய அமர்ந்த
தார்கள். 'ஐயோ! உம்முடைய தவறானொருபடி குமரன்
சக்காவத்தி, முன்பின் பாலால் வந்தவர்களுக்கெல்லாம்
வந்தி வந்தவன். 'வனிவனானும் அனாதைக்கு அழித்
தான்' என்று கூறியிருப்பதை அவன் கவனிப்பவராகக்
காணவில்லை, இவ்வாறு செய்து வந்தால் ராஜ்யம் எவ்வாறு
கிடைக்கும்? இதனால் நோக்கடிய கஷ்டம் முடிவில்
உம்முடையதேவதும், என்று பலவாறு கூறினர்.

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(b) இவ்வருஷம் டிசம்பர் மாஸம் மாடர்ன்ரிவ்யூ எனும் பத்திரிகையில், இந்தியர்க்கு இசைந்தவித்யாதாந்தைப் பற்றி, ஓர் இங்கிலீஷ்பத்திரிகையில் 1913 வருஷம் ஜகஸ்ரி மாஸத்தில், குக்ஸன் எனும் ஒரு ஆங்கிலேயர் எழுதியதினின்றி, ஓரம் ஸம் எடுக்கப்பட்டிருக்கின்றது. அதை இவ்விடம் விவரிப்போம், இந்தியர்க்குக்கல்விகற்பிப்பவர் அக்கல்வி தேரத்தின் அபிவிருத்திக்குப் பொருந்திநிற்கச் செய்யவேண்டும், இங்கிலீஷாரியிருப்ப தெல்லாம் யாவர்க்கும் நன்மையளிக்கவேண்டும். எனும். நமது வழக்கமானமுடவிய்வாஸத்தையிட்டு இங்கிலீஷ வாத யார்களுயும் பயிற்சியையும இந்நியர்க்குத் தந்தோம். இவையிரண்டும் கிழக்கு, தேசத்தினரை இங்கிலீஷக் காராகமாற்றவில்லை. என்னில், இந்தியர் இங்கிலீஷக் காரரன்று இப்போது இந்தியர் உலகத்தில் மற்றதேசத்தாருடன்வந்தகத்திலும் கைத்தொழிலிலும் போராட வேண்டியிருந்தலால், பதார்த்த விவரவிஷயமாக மேற்குதேசத்தார் விர்த்தகொழித ஸாஸ்தாங்கனிலும் கைத்தொழில் பயிற்சியிலும், இந்தியர்க்கு எவ்வளவு கற்பித்தாலும் பொருந்தும், ஆனால் அவர்க்குண்டான ஸ்வயவவிர்த்திக்கு, அளிக்கும் வித்தைக்கு பராணாகாரமாக இருக்கவேண்டியது லோகாந்தாவிஷயமே, லோகாந்தாமே கிழ்தேசத்தினர்க்கு இம்மபுரி பொத்தது, மணிதர்மதமொன்றில்தான், தமது உயர்கிலையைப் பொருந்துகின்றனர், இந்தியாதேசமெங்கும், ஸ்கூல்களும், கலேஜ்களும் உண்டாக்கி அவற்றுள் தேசாந்தாவித்தைகளைச் சுறப்புடன் ஸங்கீதப்படிப்போதித்து,

(c) அப்போது அவன் தன்னோடுகூட வந்தவர்களை அவ்வொசைத்துக் காரணம் யாதென வினவினான், அதற்கு அவர்கள் ஓ பின்னாய்! இங்கு ஓர் ஆலயமிருக்கின்றது. அங்கு அடிக்கும் மணியோசையே இது என்றனர். அதற்குக் கண்ணப்பன் ஆலயமாவதுயாது? அங்கு

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ஏன்மணியடிக்கப்படுகின்றது? என்று வினவினான். அதற்கு அவர்கள், அப்பா பிள்ளாய்! அவ்வாலயத்தில் ஈஸ்வரன் இருக்கின்றார் அவருடைய ஆராதனத்தின் பொருட்டுமணியடிக்கப்படுகின்ற தென்றனர். அதனைக்கேட்டதும் கண்ணப்பனுக்கு ஆலயத்திலுள்ளவன் ஈஸ்வரன் என்றே புத்தியுதித்ததன்றிச் சிலர் புத்திசிறியும் உண்டாகவில்லை. பிறகு அவன் ஈஸ்வரனாவது யாவன் என்று வினவ அவர்கள், உலகமெல்லாவற்றிற்கு பிறைவன், அவன் வேண்டியதை எல்லாம் தருவான். அவன் அழகினில் சிறந்தவடிவன் என்று சொன்னார்கள். அதனைக்கேட்டதும் அவ்வாறுள்ள ஓர் புருஷன் ஆலயத்திலிருக்கின்றதாக எண்ணினானேயன்றிச் சிலையைச் சிறியும் கருகினானில்லை. பிறகு அவன் ஒஹோ! உலகெல்லாவற்றிற்கும் சக்கிரவர்த்தியாயுள்ளவனும் பிசுவும் பெருமைபெற்றவனுமாயுள்ளவன் இக்கானத்திருநிலில் ஏன் அகப்பட்டிருக்கொள்ள வேண்டும்! அந்தஸ்துபிரிவிருக்கின்றவனை நாம் பார்க்காமலிருக்கக்கூடாது என் இங்ஙனம் கருதியவனாய் அவ்வாலயமிருக்கும் திசையை நோக்கிச் சென்றான். அப்பாடிச் செல்லுங்காலத்திலும் அவனுக்கு ஆலயத்திலிருக்கின்றவன் திவ்விய புருஷன் எனும்பாவணியிருந்ததேயன்றி சிவலிங்கம் உள்ளதெனும் சில புத்தி ஏற்படவில்லை.

FIRST PAPER.—PART (A).

TRANSLATION FROM SINHALESE INTO ENGLISH.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Translate into English any two but not more than two of the following passages —

- α. භවද මෑනහාගෙයෙහි එක්සමයෙකැහි අතේ පිඩු 35
 මහසිටානෝ බඩුපිරි පන්සියයක් ගැල් පසල්දනවිවට
 යැව්වාහුය. සිටානන්ගේ මිනිස්සු පසල්දනවිවට
 ගොසින් තමන් ගෙණගිය පඬුරු පසල්දනවිවට
 සිටානන්ට පෑදුවහ. සිටානෝද තෙමි හැම කොසි
 සිට අවිදුසි විවාර සැවැත්නුවර නුඹවහන්සේගේ
 යහලු අතේ පිඩු සිටානන්වහන්සේ ලහ සිට ආමිහසි
 කිකල්හි අතේ පිඩු මහසිටානෝයයි යන නමකුත්
 මිනිසුන්ට ආද්දුසි අපහාසකොට කියා තමන් යැව්
 පඬුරුත් ඇරගෙණ යහපත තෙමි නික්මෙවයි කිහ.
 ගිය පුරුෂයන්ට හිඳිනා තැනක්වත් බත්වැටුප්
 ආදියක්වත් විවාර නුදුන්න. එකල්හි ගිය පුරුෂයෝ
 තමන් ගෙණගිය පඬුරු තුමුට විකුට ඒරවින් ලවමනා
 පඬුරු ඇරගෙණ සැවැත්නුවරට ගොසින් අතේ පිඩු
 මහසිටානන්ට එපවත් කීවාහුය. නැවත කලාතුර
 කින් පසල්දනවිවට සිටානෝ ගැල් පන්සියයක
 බඩු පුරුෂ සැවැත්නුවරට යව්වාහුය. ඒ පුරුෂයෝ
 තමන් ගෙණගිය පඬුරු ඇරගෙණ අතේ පිඩු මහ
 සිටානන් දුටහ, එකල්හි අතේ පිඩු මහසිටානන්ගේ
 මිනිස්සු මෙසේ කිහ. “සාවිනි! මේ ආ සියල්ල
 වුන්ට හිඳිනා ගෙවල් බත්වැටුප් දීමත් අපට භාරයයි”
 කියා ඔවුන්ගේ ගැල් පිටිනුවර එක්තරා ස්ථානයක
 වුදවා තෙමි හැමදෙනම මෙතැන්හි ඉඳුවයි තෙමි
 හැමදෙනාටම බත්බුලත් ආදී සියල්ලම අපගෙන්
 ලැබෙන්නේයයි කියා ඔවුන් විවරක් නොහැර
 ලදුරුගෙණ රථ අඳිනා ගොත් ඒ ඒ තැන ලුහුබඳවා
 ගැලින් රහස්සක්ගලවා ගැල්පිට තබා ගැලසක් හැර
 ගෙණ ගියාහුය.

6. පැමිණි රජකර්මක ඇත්තැයි ඒ සේනාරතන 35
 නරේන්ද්‍රතෙම නිරන්තරයෙන් ආදර ඇතිව දනාදී
 පුණ්‍යකම්මයන්හි යෙදුනේ, එකල්හි සිව්සහස්
 වනින් ජනයන් රජනයකොට දනාධාතුපුත්‍රව හා
 වහදන් පැවැත්වී. එකල්හි හේ තෙමේ දෙට
 භෞතොයුරු වූ නරේන්ද්‍රයන්ගේ මෙහෙසියම අග
 මෙහෙසුන්කොට ඒ නුවර වාසයකෙළේය. එකල්හි
 කොළොම්තොම සිව් වෙළෙන්දෙු බොහෝ කලක්
 එසේ සිට භ්‍රමයෙන් උපක්‍රමනවූහ. මිසදිවු ගත්
 පව්වු කුරිරු දරුණු පරංගි නම්වූ ඒ සියල්ලෝ
 මනොඥවූ ඒ ඒ රට ගොස් කෙත්වත් නයන්නාහු
 ගෙවල් ගම් දවන්නාහු කුලපරම්පරවත් නයමින්
 මෙසේ සිංහලයන් වැනසූහ. පුරයන්ද වෛනක
 රාමයන්ද ප්‍රතිමාවැදිරයන්ද බිඳ බොධිවෘක්‍ෂ ප්‍රතිමා
 දීන්ද නසා බුඩ්ධාසනය හා ලොකයද වනාසා ඒ ඒ
 තැන බලකොටුද බැද යුදකරමින් සිටියත්හ.
 එකල වන පව්වන නදී අග්නිසාග් ඇති පන්සිය
 ආදීරට දනාධාතු ස්වාමීන් ගෙන්වා නිසිනස
 ස්වානායෙක්හි පිහිටුවා බාතුරක්‍ෂාවෙහි නිසුනා
 යන්ද එහිම වස්වා පුත්තිබිය පවත්වමින් දනාධාතු
 ස්වාමීන් මොනවට රූක ඒ සේනාරතන නම්
 නරේන්ද්‍රතෙම ඒ පුරයෙන් නික්ම ගසනසාර වසතු
 ආදීන් හා දෙවු බැර ජුග්‍රහේ පුත්‍රයන්ද ගැබ සහිතවූ
 පුවර බනා පුණ්‍ය ලක්‍ෂණ ඇති ස්වකීය මහෙසිකා
 වූන්ද මොනවට ගොගා විධියෙන් ගෙණ මහි
 යහිනණයට ගියේය. ඒ නරේන්ද්‍රයා එහිම වූසන
 කල්හි ඒ මෙහෙසිනොමෝ ඉතා යහපත් නකුතක
 තෙපස් ඇති පුත්‍රයෙක් ප්‍රසව කළාය.

හානානාගේ නමැති එක් සිංහල මිනිසෙකුට 35
 මීමෙක් සිටියේය. ඒ මීමා දුටු දුටු මිනිස්සු අල්ලාගෙණ
 ගොස් වෙල් මැඩවිටට යොදැති. උභ්‍යාලාගෙණ
 අසවල් නැන උභ්‍යාලා මඩවනවාය නිසා ආරංචි
 ලැබුනාම හානානාගේ එහි ගොස් ඒ මිනිසුන්ට
 බැණ දෙඩා උභ්‍යාලා නැවත ගෙණවුත් මුද්දාරින්නේය.
 මෙසේ එක් දවසක් කෙනෙක් ඒ මීමා බැඳගන
 ගොසින් හානානාට එතනට හානානාගේ ගොස්
 ඔහුට බැණ මීමා ඉල්ලුවේය. එහෙත් ඒ අය “තොට

ඇති මීමෙක් නැත" නිසා බැණ මීමා ක್ಷුද්ಧත්තේය. එවිට හාතානාගේ එවකට රජකළ ගජබාහු රජගේ පියවු පළමුවෙනි විජයබාහු රජ සමීපයෙහි ඒ කරුණ පැමිණිලිකර සිටියේය. ඒ බව ඇසූ රජ කණහාටුවී අපරධකාරයන් අල්ලා ගෙනෙන ලෙස නියෝග කෙළේය. ඒ අපරධකාරයෝ චූදනත් බලපුළුවන් කාරයෝ වූහ. රජ ඔවුන්ට ලදහස්වූ බැව් අසා බිය පත්ව රජුගේ අවානායන් වෙනට ගොස් ඔවුන්ට අල්ලස් දී "හාතානාගේට ඇති මීමෙක් නැත. එතෙම පිස්සෙක. මවුන් ලවා හානා නැන්වලට පැමිණ මේ මීමා වගේයයි මීමා ඉල්ලන්නේය." යනාදී අසත් බස් රජුට නිසා නඩුව අහක්කරණ ලෙස ඉල්ලා සිටියේය. එවිට රජු රුවෝ හාතානාගේ පිස්සෙකැයි පිළිගෙන ඔහු පන්නාදමා අපරධකාරයන් නීදහස් කෙළේය. එකල්හි හාතානාගේ අධික ශෝකයට පත්ව මෙබඳු අසාධාරණ කාරණා රටක සිටිනවාට වඩා එය අත්හැර යාම උතුරැයි සිතා මෙරටට එන යන වෙළඳ නැව්නින් ඉන්දියාවේ සොළිකරේට පිටත්ව ගියේය.

FIRST PAPER.—PART (A).

TRANSLATION FROM KANARESE INTO ENGLISH.

The figures in the margin indicate full marks.

Translate into English any two of the following three passages:—

(a) ಒಂದಾನೊಂದು ಕಾಲದಲ್ಲಿ, ಮಿರ್ಮಿಡಸ್ಸ್ (Myrmidons) 35
 ಜನರ ಅಧಿಪತಿಯಾಗ ಪೇಲಿಯಸ್ (Peleus) ಎಂಬ ರಾಜನಿಗೂ
 ಸಮುದ್ರ ರಾಜನ ಮಗಳಾದ ಥೇಟಿಸ್ (Thetis) ಎಂಬ ಕುಮಾರಿಗೂ
 ವಿವಾಹಮಂ ಗಳವು ಬೆಳೆಯುತ್ತಿದ್ದಾಗ, ಎರಿಸ್ (Eris) ಎಂಬ
 ಕಲಹಾಭಿಮಾನಿಯಾದ ದೇವತೆಯೊಬ್ಬಳನ್ನು ಬಿಟ್ಟು, ಮಿಕ್ಕ
 ದೇವತೆಗಳೆಲ್ಲರೂ ಆಹ್ವಾನಪೂರ್ವಕವಾಗಿ ಬರಮಾಡಿಕೊಳ್ಳಲ್ಪ
 ಟ್ವರು. ಆಗ ಕಲಹದೇವಿಯು ಕೋಪಿಸಿಕೊಂಡು, ಆತಿಥಿಗಳೆಲ್ಲ

ಕುಳಿತಿದ್ದ ಸ್ಥಳದಲ್ಲಿ — ‘ಪರಮಸುಂದರಿಗೆ!’ — ಎಂಬುದಾಗಿ ಕೆತ್ತು
 ಗೆಯಿಂದ ಬರೆದ ಬಂಗಾರದ ಸೇಬುಹಣ್ಣೊಂದನ್ನು ಬೀಸಾಡಿದಳು.
 ಆಗ ಅಲ್ಲಿ ಅತಿಥಿಗಳಾಗಿದ್ದ, ದೇವರಾಜನ ಪತ್ನಿಯಾದ ಹೇರಾ
 (Hera) ಎಂಬವಳೂ, ಸಂಪನ್ನಭಿಮಾನ ದೇವತೆಯಾದ ಎಥೀನಾ
 (Athena) ಎಂಬವಳೂ, ಕಡಲ್ಪೊರೆಯಲ್ಲಿ ಜನಿಸಿ ಅನನ್ಯಸುಂದರಿ
 ಯೆಂದು ಪ್ರಖ್ಯಾತಿಗೊಂಡ ಅಫ್ರೊಡೈಟ್ (Aphrodite) ಎಂಬವಳೂ,
 ಆ ಹಣ್ಣು ಗಾಗಿ, ಸ್ಪರ್ಧಿಸಿ ಕಲಹವಾಡುವುದಕ್ಕೆ ಪ್ರಾರಂಭಿಸಿದರು.
 ಇದನ್ನು ನೋಡಿ, ದೇವಾಧಿದೇವನಾದ ಜ್ಯುಸಿಸ್ (Jues) ಎಂಬ
 ವನು ಕಲಾಕೌಶಲಗಳ ಅಭಿಮಾನ ದೇವತೆಯಾದ ಹರ್ಮಿಸ್
 (Hermes) ಎಂಬಾತನನ್ನ ಕರೆದು — ‘ಈ ಸುಂದರಿಯರನ್ನು ಟ್ರಾಯ್
 (Troy) ದೇಶದ ಪ್ರಿಯಾಮ್ (Priam) ರಾಜನ ಪುತ್ರನೊ ಸರ್ವಾಂಗ
 ಸುಂದರನೂ ಆದ ಪ್ಯಾರಿಸ್ (Paris) ಕುಮಾರನ ಬಳಿಗೆ ಕರೆದು
 ಕೊಂಡುಹೋಗು. ಮತ್ತು ಆತನಿಂದ ಈ ವ್ಯಾಜ್ಯವನ್ನು ತೀರ್ಮಾ
 ನಮಾಡಿಸು’ — ಎಂದು ಆಜ್ಞಾಪಿಸಿದನು. ಆ ಮೇರೆಗೆ, ಎಲ್ಲರೂ
 ಅಲ್ಲಿಗೆ ಹೋದರು. ತನು ತನುಗಿ ಅನುಕೂಲವಾಗಿ ತೀರ್ಮಾ
 ನವಾಗಬೇಕೆಂಬ ಈರ್ಪೆಯಿಂದ ಆ ದೇವತೆಗಳಲ್ಲಿ ಪ್ರತಿಯೊ
 ಬ್ಬರೂ ಬಗೆಬಗೆಯಾಗಿ ಪ್ಯಾರಿಸ್ ಕುಮಾರನಿಗೆ ಆಶೆಯನ್ನು
 ತೋರಿಸಲು ಪ್ರಾರಂಭಿಸಿದರು. ತನಗೆ ಆ ಹಣ್ಣು ಕೊಟ್ಟಿರುವರೆ,
 ಆಸಿಯಾಖಂಡದ ಏಕಚ್ಛ ಕ್ರಾಧಿಸತ್ಯವನ್ನೂ ಅಗಣಿತವಾದ ಧನ
 ವನ್ನೂ ಕೊಡುವೆನೆಂದು ಹರಾದೇವಿಯೂ, — ಅನನ್ಯ ಸಾಧಾರಣ
 ವಾಙ್ಮಯಶಸ್ಸನ್ನೂ ಜಯವನ್ನೂ ಕೊಡುವೆನೆಂದು ಎಥೀನಾದೇ
 ವಿಯೂ, — ಶೋಕೈಕ ಸುಂದರಿಯಾದ ಪತ್ನಿಯನ್ನು ಕೊಡುವೆ
 ನೆಂದು ಅಫ್ರೊಡೈಟುದೇವಿಯೂ ಆತನನ್ನು ಪ್ರೇರೇಪಿಸಿದರು. ಇವ
 ರಲ್ಲರೂ ಪ್ರಬಲದೇವತೆಯಾಗಿದ್ದುದರಿಂದ, ಯಾರನ್ನೂ ಅಸಮಾ
 ನಾನಪಡಿಸಲು ಸಾಧ್ಯವಾಗಿರಲಿಲ್ಲ. ಕೊನೆಗೆ ರಾಜಪುತ್ರನು ಆ
 ಹಣ್ಣನ್ನು ಅಫ್ರೊಡೈಟಿಗೆ ಕೊಟ್ಟು, ಅವಳೇ ಪರಮಸುಂದರಿಯೆಂದು

ತೀರ್ಮಾನವಾಡಿದನು. ಕೃತ್ಯಗಳಾದ ಆ ದೇವಿಯು ಆ ರಾಜ ಪುತ್ರನನ್ನು ಸ್ಪಾರ್ಟಾ (Sparta) ರಾಜ್ಯಕ್ಕೆ ಕರೆದುಕೊಂಡು ಹೋಗಿ, ಆ ದೇಶದ ಮೆನೆಲಾಸ್ (Menelaus) ಎಂಬ ರಾಜನ ಮಗಳಾದ ಹೆಲೆನ್ (Helen) ಎಂಬ ರಮಣೀರತ್ನವನ್ನು ತೋರಿಸಿಕೊಟ್ಟಳು. ಪಾರಿಸ್ ಕುಮಾರನು ಉಪಾಯಾಂತರದಿಂದ ಆ ಸುಂದರಿಯನ್ನು ಬಲಿಸಿ. ಅವಳನ್ನು ಹಾರಿಸಿಕೊಂಡು ಹಿಡಿದೊಡನು

(b) ಕದಂಬರಾಜವಂಶದವರು ಅರವಿಂದೂ ಅರರಲವೆಂದೂ ಎರಡು ಅಭಿಪ್ರಾಯಗಳಿವೆ. ಮಹಾಭಾರತದ ಕಾಲದಲ್ಲಿ ಯಾವುದೋ ಒಂದು ಅರ್ಯಕುಲವು ದಕ್ಷಿಣಕ್ಕೆ ಇಳಿದು ಸಹ್ಯಾದ್ರಿ ಪರ್ವತಗಳ ಕೆಳಗಣ ಸೀಮೆಯಲ್ಲಿ ನೆಲೆಸಿತ್ತು, ಅಲ್ಲಿಯ ಮೂಲನಿವಾಸಿಗಳಾದ ದ್ರಾವಿಡ ಜನರೊಡನೆ ಕಲಿತುಹೋಗಿ. ಕ್ರಮೇಣ ಒಂದು ರಾಜ್ಯವನ್ನು ಸ್ಥಾಪಿಸಿದರೆಂದು ಕೆಲವರು ಹೇಳುವರು. ಕದಂಬರಾಜರು ಕರ್ಣಾಟಕದೊಳಗೆ ಬಂದಾ ನೊಂದು ಕಾಲದಲ್ಲಿ ಪ್ರಬಲರಾಗಿದ್ದ ಕುರುಂಬ ಅಥವಾ ಕುರು ಬರೋಳಗಿನವರೇ ಆಗಿರಬಹುದೆಂದೂ, ಕುರುಂಬ ಎಂಬ ಶಬ್ದವು ಸಂಸ್ಕೃತದ ಸಂಸರ್ಗದಿಂದ ಕದಂಬವಾಗಿರಬಹುದೆಂದೂ ಕೆಲವರು ತರ್ಕಿಸುತ್ತಾರೆ. ಈ ವಂಶದ ಸುಮಾರು ಇಪ್ಪತ್ತೊಂದು ಮುಂದಿ ರಾಜರು ಹೆಚ್ಚು ಕಡಿಮೆ ಇನ್ನೂರೈವತ್ತು ವರ್ಷ ಕಾಲ ಅಳಿದರೆಂದು ತೋರುತ್ತದೆ. ಇವರಲ್ಲಿ ತ್ರಿಣೇತ್ರ ಕದಂಬನೇ ಮೊದಲನೆಯವನು. ಈತನು ಆನೆಗೊಂದಿಯ ಬರ್ಬರ ಅರಸರನ್ನು ಜಯಿಸಿ, ಕದಂಬರಾಜ್ಯವನ್ನು ಸ್ಥಾಪಿಸಿದನೆಂದು ಹೇಳುವರು. ಕದಂಬರಾಜರಲ್ಲಿ ಮಯೂರವರ್ಮನೇ ಮಹಾ ಪರಾಕ್ರಮಿಯೆಂದೂ ಧಾರ್ಮಿಕನೆಂದೂ ಪ್ರಸಿದ್ಧಿ ಪಡೆದನು. ಇವನು ಕ್ರಿಸ್ತಶಕದ ಎರಡನೆಯ ಶತಮಾನದಲ್ಲಿ ಆಳಿದನು. ಕದಂಬ ರಾಜರಿಗೂ ಕಾಂಚೀಪುರದಲ್ಲಿ ಆಳುತ್ತಿದ್ದ ಪಲ್ಲವ ಅರಸರಿಗೂ

ದೇವವಿದ್ವಿತ್ತು. ಮಯೂರವರ್ಮನು ಸಲ್ಲವ ರಾಜನನ್ನು ಗೆದ್ದು ತನ್ನ ರಾಜ್ಯವನ್ನು ಕ್ರಿಪರ್ವತದ (ಕರ್ನೂಲು) ವರೆಗೆ ವಿಸ್ತರಿಸಿದನು. ಸಲ್ಲವ ಅರಸರು ಚೈನಮತದವರಾಗಿದ್ದರೂ ಬ್ರಾಹ್ಮಣರನ್ನು ಅತ್ಯಾಧರದಿಂದ ಕಾಣುತ್ತಿದ್ದರು. ಮಯೂರವರ್ಮನೂ ಅವನ ಮಗನಾದ ತ್ರಿಶೇತ್ರ ವರ್ಮನೂ ರೋಹಿಣಿಖಂಡದಲ್ಲಿಯ ಅಹಿಕ್ಷೇತ್ರವೆಂಬ ಸಟ್ಟಣದಿಂದ ಕೆಲವು ಬ್ರಾಹ್ಮಣರನ್ನು ಸಂಸಾರ ಸಮೇತ ಕರೆಯಿಸಿ, ತಮ್ಮ ರಾಜ್ಯದಲ್ಲಿ ನಿಲ್ಲಿಸಿಕೊಂಡರು. ಈ ಬ್ರಾಹ್ಮಣರ ಸಂತತಿಯವರೇ ಈಗಿನ ಹವಿಕರು. ಅಹಿಕ್ಷ ಎಂಬ ಪದವೇ ಕೆಟ್ಟು ಹೈಗ ಖಂಡಾಗಿದೆ ಎಂದೂ ಅಭಿಪ್ರಾಯವಿದೆ.

ಕದಂಬರಾಜರಲ್ಲಿ ಅನೇಕರು ಅಶ್ವಮೇಧಗಳನ್ನು ಮಾಡಿದರೆಂಬದಾಗಿ ಲೇಖನಗಳಿರುವುದರಿಂದ ಅವರ ರಾಜ್ಯವು ಬೃಹತ್ ವಿಸ್ತಾರವಾಗಿದ್ದರ ಬಹುದು. ಇದರೊಡನೆ ಹುಟ್ಟಿದ ಅನೇಕ ಸಣ್ಣ ಮೊಡ್ಡರಾಜ್ಯಗಳು ನಿರ್ಣಾಮವಾಗಿ ಹೋದರೂ ಈ ರಾಜ್ಯವು ಕ್ರಿಸ್ತ ಶಕದ ಅರನೆಯ ಶತಮಾನದ ತನಕ ಕಳೆಗುಂದಲಿಲ್ಲ. ಸಹ್ಯಾದ್ರಿಯ ಮೇಲಣ ಬಲವಾದ ಕೋಟೆಗಳೇ ಭದ್ರವಾದ ಆಶ್ರಯವಾಗಿದ್ದುದರಿಂದ ಈ ರಾಜ್ಯವನ್ನು ಸಲ್ಲವರಾಜರೂ ಗಂಗರಾಜರೂ ಮುರಿಯಲು ಹಲವು ಸಲ ಪ್ರಯತ್ನಮಾಡಿದರೂ ಸಾರ್ಥಕವಾಗಲಿಲ್ಲ. ಮತ್ತು ಕದಂಬರ ರಾಜ್ಯವು ಸುಮಾರು ಎಂಟನೂರು ವರ್ಷಗಳಕಾಲ ಯಾರಿಗೂ ಕೈಮುಗಿಯದೆ ಸ್ವತಂತ್ರವಾಗಿ ಇದ್ದಿತ್ತು. ಕದಂಬರಾಜರಹಸರು ವಿಜಯನಗರ ರಾಜ್ಯದ ಪ್ರಾದುರ್ಭಾವದವರೆಗೆ ಇತಿಹಾಸದಿಂದ ಮಾಯವಾಗುವುದಿಲ್ಲ. ವಿಜಯನಗರವು ಘನತೆಗೇರಿದೊಡನೆ ಮೊದಲೇಬಲವಾಗಿದ್ದ ಕದಂಬ ರಾಜ್ಯವು ಲುಪ್ತವಾಯಿತು. ಅವರ ರಾಜಧಾನಿಯಾದ ಮೈಜಯಂತಿ ಸಟ್ಟಣವು ೨ ಕಾಲದಲ್ಲಿ ಧನಕನಕ ವ್ಯಾಪಾರಗಳಿಂದ ಪ್ರಸಿದ್ಧವಾದ ಸ್ಥಳವಾಗಿದ್ದಿತೆಂದು ತಿಳಿಯಬರುತ್ತಿದೆ.

(೧) ಪಾಠಶಾಲೆಯಿಂದ ಮನೆಗೆ ಬಂದಕೂಡಲೇ ಜೇಮ್ಸ್ (James) 35

ತನ್ನ ತಾಯಿಯಬಳಿಗೆ ಬಿಡುವೋಗಿ— “ಅಮ್ಮ, ದಳವಾಯಿ ಯೆಂದರೇನು?—ನೀನು ಅಕ್ಕರೆಯಿಂದೋದಿದರೆ ಬಂದಾನೊಂದು ಕಾಲದಲ್ಲಿ ನೀನೂ ದಳವಾಯಿಯಾಗುವೆ?—ಎಂದು ಹೇಳಿ ನೆಮ್ಮ ಗುರುಗಳು ನನ್ನ ಬೆನ್ನಿನಮೇಲೆತಟ್ಟಿ ನನ್ನನ್ನು ಮುದ್ದಿಸಿದರು. ದಳವಾಯಿಯೆಂದರೇನು?”—ಎಂದು ಅತ್ಯಾತುರದಿಂದ ಕೇಳಿದನು. ಎಲೀಜಿಯ (Eliza)—“ಮಗುವೇ. ದಳವಾಯಿಯು ಸೈಸೈಕ್ಕೆಲ್ಲಾ ಅಧಿಸತಿ. ಅವನು ಯುದ್ಧಕಾಲದಲ್ಲಿ ಸೈಸೈವನ್ನು ನಡೆಯಿಸುವನು. ಅವನ ಆಜ್ಞೆಯಂತೆ ಲಕ್ಷೋಪಲಕ್ಷ ಸಿಪಾಯಿಗಳು ಯುದ್ಧಮಾಡುವರು. ಅವನು ಜರತಾರಿಯ ಕವಚವನ್ನು ಹಾಕಿಕೊಂಡು ಆತ್ಮವಿರೂಢನಾಗಿ ಕಯ್ಯಲಿ ಕತ್ತಿಯನ್ನು ಹಿಡಿದಿರುತ್ತಾನೆ. ಸೈನಿಕರಿಗೂ ದರೋ ಸಾಮಾನ್ಯರೂ ಉಡುಪಿರುತ್ತದೆ. ಅವರು ಬಂದೂಕವನ್ನು ಹಿಡಿದುಕೊಂಡು ನಡೆದುಹೋಗುತ್ತಾರೆ. ನಮ್ಮ ವಂಶೀಯರಲ್ಲಿ ಯಾರೂ ಈಗಿನವರೆಗೆ ದಳವಾಯಿಗಳಾಗಿ ಬಾಳದಿದ್ದರೂ, ಅನೇಕರು ದಳವಾಯಿಗೆ ಕಡಿಮೆಯಾದ ಅಧಿಕಾರದಲ್ಲಿದ್ದು ಮಾತೃಭೂಮಿಯ ನೇವೆಮಾಡಿ ಪ್ರಖ್ಯಾತರಾಗಿದ್ದಾರೆ. ನಮ್ಮ ದೇಶವು ಈಗ ಘನವಾಯಿದೆ. ಯುದ್ಧಸಂಭವವು ಇರುವುದಿಲ್ಲ. ಸಾಸಿರಾರು ಜನರನ್ನು ನಿಮಿಷಮಾತ್ರದಲ್ಲಿ ಕೊಲ್ಲುವುದಿಲ್ಲವು ಫೋರವಾದುದು. ನೀನು ಪಂಡಿತನಾಗಿ, ಕೀರ್ತಿವಂತನಾಗಿ ನರವಧಿಯನ್ನು ಮಾಡದೆಯೇ ದಳವಾಯಿಯಂತೆ ಖ್ಯಾತಿವಂತನಾಗಬಹುದು. ನಿಮ್ಮ ಪೂರ್ವಿಕರು ಧೀರರೆನಿಸಿಕೊಂಡು ಲೋಕಮಾನ್ಯರಾಗಿ ಬಾಳಿದರು. ನಿಮ್ಮ ಮುತ್ತಜ್ಜನಾದ ಸಾಲೋಮನ್ ಗಾರ್ಬೀಲ್ಡ್ ಎಂಬುವನು ನಮ್ಮ ದೇಶದ ಪ್ರಾತಂತ್ರ್ಯಪದವಿಗಾಗಿ ಹಿಂದೆ ನಡೆದ ಮಹಾಕದನದಲ್ಲಿ ಗಣ್ಯನಾಗಿದ್ದನು. ನಿಮ್ಮಜ್ಜನಾದ ಥಾಮಸ್ ನ್ಯೂಯಾರ್ಕ್ (New York) ಸಂಸಾನದ ಕಾಡುಗಳನ್ನು ಉರುಗಳ

ನ್ನಾಗಿ ಮಾಡುವುದರಲ್ಲಿ ಪ್ರಥಮ ಪ್ರವರ್ತಕನಾಗಿದ್ದನು. ನಿಮ್ಮ ತಂದೆಯಾದ ಏಬ್ರಾಮು ಓಹಿಯೋ ಸಂಸಾದ ಕಾಡುಗಳನ್ನು ಉರುಗಳನ್ನಾಗಿ ಮಾಡುವ ಕಾರ್ಯದಲ್ಲಿ ಪ್ರಥಮ ಪ್ರವರ್ತಕನಾಗಿದ್ದನು. ಅಕಾಲಮೃತ್ಯುವಿಗೆ ಆ ಧೀರನು ತೊತ್ತಾದುದರಿಂದ ನಾವು ಈ ರಿಕ್ ಸಿದ್ಧಿಯಲ್ಲಿ ಕಷ್ಟವಡುತ್ತಿದ್ದೇವೆ. ದಳವಾಯಿಯಾಗುವಹಕ್ಕು ನಿಮ್ಮ ಪೂರ್ವಿಕರೊಲರಿಗಿಂತನೀನೂ ಕೀರ್ತಿವಂತನಾಗುವೆ. ಮಾತೃಭೂಮಿಯ ಕ್ಷೇಮಕ್ಕಾಗಿ ಪ್ರಾಣವನ್ನು ತೆರುವುದಕ್ಕೆ ಎಲ್ಲರೂ ಸಿದ್ಧರಾಗಿಯೇ ಇರಬೇಕು"—ಎಂದಳು. ತಾಯಿಯ ವಚನಗಳನ್ನು ಚೇರಿಸುತ್ತ ಸಬ ನಾಗಿ ಸಿಂತು ಕೇಳಿದನು. ಅವನ ಕಣ್ಣುಗಳು ಹೊಳೆದುವು. ಫೈಯು ಹರಿಯಾಯಿತು ತಾಯಿಯು ಹೇಳಿದ ಅವರ ಪೂರ್ವಿಕರ ವೃತ್ತಂತವು ಅವನ ಮನಸ್ಸಿನಲ್ಲಿ ನೆಲೆಗೊಂಡು ಸಿಂತಿತು.

FIRST PAPER.—PART (A).'

TRANSLATION FROM GARO INTO ENGLISH.

(Candidates are required to give their answers in their own words as far as practicable.)

1. Sagal.

A'gilsako a'ana bato chian bang'bata. A'gilsakni kosako b'adita hianp-rang chini kosako nae dongonga. una bato chini ning'o donggipan chang-gitam bata. Uni gimin a'ana bato chian mai manjan bata. Indiba ua churangko dingtang dirigtang uina gita, dingtang dingtang bak dake uarangko dingtang dingtang bimungchi mingaha. Uatangkon sagal minga. Sagal namen apalbegipa chi ong'a. Sagalo mamungba dong-penga dongjani gimin balwa namen ta'arakbea. aro balwa ta'arakani gimin sagakni chi pokpekbea, aro chipakore satbea. Sagalni chi rang'a pokpekatako man'ahaode, uan ruuta salua kingkinz don'a. aro bato bato pokpekroroange dal'dalbegipa chipakkorerangko ong'katata aro indaken basakoba basakobade chipakkore dotprakan bewal a'bri dotprakni pal ong'angpila. Indake chipakkore satbemitingo re'na namen kenbeani ong'a.

2. Beaver.

Beaverranga chio donggipa dal'begipa mesérang gita ong'a. Uamang'a fut gni ro'a. Aro uamang'ni ki'me inch 10 ro'a. Indiba uamang'ni ki'me gipin matburungrangni ki'me gita ong'ja. Uamang'ni ki'me dal'gipa aro

uarango kimilni pal na'tok gita bisingkap ba sta dongskaa. Beaver mangsa selgnimangni pal jrima. Chio jronitingo uamang'ni ki'merang boitani pal ong'a, maina uachin uamang jipe jroa. Aro cha'na ba kam ka'na asongmi tingoba ua ki'merangan uamang'ni pangchake asongani ong'a. Bol cheksirangko tinsotna uamang'ni wagamrang namen rakbea aro matbea. Uchin uamang bol cheksirangko tinsote an'tangtangna nokrangko rika, aro chini kosako jangrangrangko kaa. Beaverrang nok rikna changbegiparang ong'a, aro uamang uarjang'ni nokrangko namen rongtalbeo rakia. Chi ta'rakgiparangni kosako, bol cheksirangchi gonggeske dake jang'rangrangko kana changa.

3. Mikka.

Isol an'chingna cha'aniko on'na ine an'ching poraia. Isol maikai cha'aniko on'a? Nang'ni ma'a paa a'ako game miko aro me'suko man'a. Nang'ni ripeng saksani paa pondit ong'e uni dormahako ra'e cha'aniko brea. Aro ripeng saksani paa sorkarini kamko ka'e miko bree-cha'a. Isol on'a ine maikai aganna man'a? A'a gangipa miko go'a, oo, indiba uko cha'o dal'atna amja. Mikka wajaode mi misirang chajawa; Mande mikka waatna amja, salkoba teng'suatna amja. Iurangko Isol dakjaode manderang mamungdakoba cha'aniko man'na amjawachim.

Indiba saoba saoba agannaba donga, mikka waade an'tangni niar. gitasa waa, Isolni daka ong'ja. Indide an'ching mikka waani niamko chanchie nina. Mikka baoni ong'kata? Aramrangoni ong'kata. Aramrang baoni? Uko bang'a manderang chanchikuja, uigipa manderang aramrang sagaloni ong'kata ine agana. Ia a'gilsako a'a ran'gipana bate sagalrang bata. Sagalni kosakoni chini biba pangnan chadoenga, aro kosakchi ka'sinbata balwako man'e uar biba chi pil'taia, aro a'aona ga'akpila.

FIRST PAPER.—PART (A).

TRANSLATION FROM KHASI INTO ENGLISH.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Translate into English *any two* of the following three passages:—

35

(a) Katno ka ba'hrav bad ka baphylla kane ka ri India ka long! Ki ong ba ka heli khad-ar shah ia ka ri Bilat baroh kawei! Haba ia-khein bad lynter bad pyngkiang ka don palat khad-ar lak skwer mail, bad ki briw pat ki den haduh laispah million! Kine ki ktieu la ki long kiba lyngkot haba thoh, hynrei ka long kaba eh ba'n sngow-thuh haduh katno ki kit jingmut. Ba'n da pynieng ter-ter ia kine ki lai-pah million ki traishnong ka ri India, bad ai mar shi pruh ia uwei uwei u briw, ka lynter jong ki baroh ka'n palat phra-phew-san haiar mail. Haba /khein ia ka jingthaw sawdong ka pyrtnei ba ka long tang ar phew-san hajar mail, ngi iohi ba la dap briw ba'n ieng lynter baroh sawdong ka pyrtnei lai-sien shiteng.

Ka ri India ka long kaba donnam naduh mynhyndai kulong. Ngipule shaphang jong ka ha ki jingthoh barim jong ki Grik. U Solomon u la phah wad sha India ia ka ksiar, ki bniat hati bad ki maw

kordor. Ki traishnong kiba nyingkong jong kane ka ri ki la long ki riw-khlaw, bad ki la ju-thaw ia ki wait bad ki khnam jong ki da ki maw-shamok namar ba ki'm pat tip ba'n pyndonkam da u nar.

(b) Dei hamar pydong kane ka Them nga la iohi ba ka shyntur ka dujok ka don, bad ka don ha synduh eh ka lynti. Hangne te u Khristan u la ong. Nga'n leh kumno? 'Teng teng ka thyllieid ding bad ka tydein, lem bad ka phuliah ding bad ki jingsawa kiba sngew trim (kinokiei kiei ki'm shepting ia ka waitlam u Khristan kumba shepting u Apollyon mynshiwa) ki iamih bun eh kattakatta haduh ba u Khristan u la dei ba'n suh'la ka waitlam hapoh ka jingsop jong ka, bad ba'n pyndon kam da kawoi pat ka atiar kaba la khot ka Jingduwai-Baroh; kumta u la pyrta ha kaba nga la ioh sngew, Ah Trai, nga kyrpad ia me, to pyllait ia ka mynsim jong nga. Kumta u la nang iaid kham slem, la kumta kita ki thyllieid ding ki nang hud kumba'n j'liah ia u. U la iohsngew ruh ki jingud kiba sngew isynei bad ki ji igkyntur shane bad shawei, haduh ba haba dei-ba-dei u la sngew kumb'n shu tar lyngkhot noh ia u, lane ba'n iuh ia u kumba iuh ia ka ktihi ha lynti shnong. Ia kane ka jingkhymih kaba itrim bad ia kane ka jingsawa ba-sngew shyrkhei u la iohsngew bun mail; te haba u la poi sha kawoi ka jaka ha kaba u mut ba shi kynhun ki ksuid kumba ki nang iawan ba'n iakynduh bad u, u la sangelh bad u la sydang ba'n puson ka bha ba u'n leh da kumno. Shiphang, u beh mut ba u'n leit kylla noh; nangta pat u poi jingmut ba lehse u la lah lait shiteng kata ka Them.

(c) Baroh shi bnai U Kasar bad kiwei ki iashet pyni ia la ki huit, bad ki la lah ba'n ring ia U Brutus ha ka jing-shot huit jong ki. Te la poi 'Ka Ides u nai Marts,' kaba long kadan tarik jong uta u bnai. Bad uwei u nongkhan u la lah ong ha U Kaisar ba u'n sunar bha ha kata ka sngi. Ka Kalpurnia, ka tnga U Kaisar ka la pyrshang ba'n khang ia u ba u'n ym leit Dorbar ha kata ka sngi. Ka ong ba ka la phohsniw kiba sniw ki jingphohsniw, bad ba ki jingih ba iphylla ki la paw baroh shi miet-baroh kine ki la long ki dak kynsha ha ka jingsngewthuh ka Kalpurnia. Ha koba nyingkong U Kaisar u la kohnguh ba'n sah ha ing; hynrei haba wan U Desios, uwei na ki nongiashot, u la rkhi bein ia kat kane ka jingleh bieit, ba'n pynsangelh ia ka kam bah kam san ka shnong ka thaw tang namar ka jingphohsniw ka kynzhei, te kumta U Kaisar u ong, 'Ai ka jainkup, nga'n leit kein,' hangta u la leit ha ing dorbar kaba ki khot Ka Kapitol.

Haba ki myntri, bad kiba khraw batri ki la shong, ka kam ka la sdang. Kine ki nongshet ki iawan hajan U Kaisar da kaba ki leh mynleh ai ki dyrkhat ha u, lafe ia iapan jingsngewbha ei-ei. Kumta haba ki la wan hajan jong u baroh, U Kaska u dung ia u na ka ryndang. Hadien kata kita kiwei ki dung da ki shuri jong ki; bad khadduh eh U Brutus 'uba ieit eh' u rah la ka kti bad u dung ia u.

FIRST PAPER.—PART (A).

TRANSLATION FROM BURMESE INTO ENGLISH.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks

Translate any two of the following passages into English :—

(a) မိဖုရားကြီးသည်။ အရှင်မင်းကြီး။ ကိုယ်တော် 35
သားတော်သည်ကား။ စကားမပြောကိုယ်လက်မတုန်မ
လှုပ်ခန့်ချံ့သော။ ကြန်လက္ခဏာမျှကဲ့ခြင်းမထင်။ သူခပ်
သိမ်းမြင်၍။ ကြင်ဘွယ်ချစ်ဘွယ်သနားဘွယ်ရှိသောအ
ဆင်းသက္ကန့်နှင့်ပြည့်စုံပါသေး၏။ ရှေးသောအခါယာမ
မင်းသားသည်။ တော၌နေလျက်ပင်။ မိမိစီးသောခြေခင်း
ကိုသာ။ ဗာရာဏသီပြည်ဝယ်။ ရာဇပလ္လင်ဦးကင်ထီးပြွ
အော်၍။ ကိုယ်စားမင်းပြုစေသော်။ မျှားတော်မတ်တော်
အများ။ မင်းသားကိုခန့်ငြားခြင်းဖြင့်။ ခြေခင်းစင်မျှသခင်
လုပ်လျက်။ လက်အုပ်မြတ်ဦးကိုးကွယ်ကြကုန်၏ဟူ
သကဲ့သို့။ ဘုန်းတော်ဇေအာဏာသတင်းဖြင့်။ မင်းတကာ
တို့သက်မြတ်သောကိုယ်တော်စည်ထင်ရှားရှိလျက်။ သား
တော်တမိသကုမာရကိုထီးနန်းနှင်းသည်ဟူ၍။ ဘယ်သူ
မလေးမလောက်ပြုဝံ့ပါအံ့နည်း။

(b) မဟာဇနကမင်း။ ရွာနိဦးမြို့ငယ်များစွာတို့၏အခွ 35
န်ဆက်ရာဖြစ်၍။ ဆင်း၊ မြင်း၊ ရထား၊ ခြေသည်၊ သူဌေး။
သူကြွယ်၊ အမတ်ပုရဟိတ်မင်းဆွေ၊ မင်းမျိုးတို့ဖြင့်ပွဲ
သောမိမိလျာပြည်ကြီးစည်းပိတ်ဝယ်။ အဘိုးများစွာထိုက်
သောအဝတ်တန်ဆာတို့ကိုလည်းကောင်း။ ဗိုလ်တရာအ

ချိန်ရှိသောရွှေလင်ပန်းကိုလည်းကောင်း။ စွန့်ပစ်၍။ အဘိုး
မသိုက်သောဤသင်္ကန်းကိုဝတ်လျက်။ အဘိုးမသိုက်သော
ဤမြေသပိတ်ကိုလွယ်ပိုက်ကာထွက်လာခဲ့ရသည်မှာအ
ကြောင်းအသို့နည်း။ သင့်ကိုဆွေတော်၊ မျိုးတော်၊ မှူးမတ်၊
ပြည်သူတို့သည်မနှစ်မြို့၍။ ပြည်တိုင်းကားမှဟိမဝန္တာ
ဘောအရပ်သို့ပို့ဆောင်ထုတ်နှင်လိုက်ခြင်းကြောင့်။ ပြည်
သူတို့ကိုမလွန်နိုင်သဖြင့်။ ဤမြေခွက်ကိုနှစ်သက်ရလေ
သလောဟုမေး၏။

(၁) မဒ္ဒိမိဇရားသံဃာ။ အရှင်မင်းကြီး။ အရှင်မင်းကြီး 35
အားဤမြေကြီးသည်လည်းပွဲတင်ထပ်မျှဖြစ်၏။ အရှင်မင်း
ကြီး၏ကျေးဇူးသိတင်းကျော်စေခြင်းသည်လည်းအထက်
နတ်ပြည်တိုင်အောင်နှံ့၍တက်၏။ ထက်ဝန်းကျင်သော
အရပ်မျက်နှာမှလည်းမိမိအခါမဟုတ်ဘဲ။ လျှပ်စစ်နွှဲ
ယံတို့သည်ပြီးပြီးပြက်ထွက်ကုန်၏။ ဧကန်ပြီသော
အသံ။ ကမ်းပါပြတ်၍ချောသို့ကျသောအသံကဲ့သို့လည်း
တတောလုံးထင်ကုန်၏။ နာရစနုတ်၊ ပဗ္ဗတနုတ်၊ ဗိဿနိုး
နုတ်၊ သောမနုတ်၊ ဖောမနုတ်၊ ဝဿာဏ္ဏနုတ်၊ ဤနတ်မင်းတို့
သည်လည်းမိမိတို့ဗိမာန်တံခါးဝ၌ရပ်ကုန်လျက်။ ဝံ့ဥဿ
နရာမင်းကြီးသည်မြတ်သောအလှူကိုလှူသတတ်ဟုဝမ်း
မြေ့ဝမ်းသာ။ အနှုမောဒ္ဒနာပြုကြကုန်၏ဟုဆိုလေ၏။

FIRST PAPER. — PART (A).

TRANSLATION FROM MODERN ARMENIAN INTO ENGLISH.

Translate into English *two* out of the following three passages :— 70

1. Արեւուն է այս Շուշան, վառն զի Հայրենասիրութեան և աղատութեան հոտ կը բուրէ : Գեղիցիկ է այս Շուշան վառն զի կը գրաւէ և կը տանի միր հոգրու և սիրուն այն ուարն. որ Նայոց կենուանութեան դարն է, այն դաղտն, որ Նայոց քաջաց նահատակութեան դաղտն է, այն ուարաստանն, ոն ծագկալից եղած է ոչ թէ անձրևաբեր ամպերէն, այլ միր սուրբ և արիւնա բուղիս վկայից ցանեալ և ցրուեալ ոպետակ ոսկերիքէն : Այս զձայն նոյն ուշտն և ուարատանն կը տանի, եւր կենդանութեան վոյրն կը տանի, և ով որ կենուանութիւն կը ոիրէ, պէտք է որ նոյն ուշտէն ծագի մը հոտստէ, այոսք վարու, վազին Շուշան, ապա մանիղակ ապա քալաոսն և այլն :

2. Ժամանակը բարիքներով լի հեզեզատ մի է որ կուգայ շուտով կը ոահի և կերթայ : Անոք որ արեւուն չն անոնք որ քաղ և ժիրին, այս հոտանքի միզէն շուտով իրենց բարիքները կը փնտուեն կը դտնին, կուռնին և մշտնջենապէս կը վայելեն :

Իսկ անոնք որ ծոյլ ին, ժամանակի որժէքը զը ճանաչելով, կը քնանան : կուգաց ժամաւոր և կերթայ, ոակայն նսքա կը զահեն ոզ ինչ :

Մի որերը սրբ միչ հաղուով տըւած են, անոք ժամտեսկի նղիարները են, որք իրարու ետեւէն կրտահին կերթան մէկ մը եւս եր զուռնալու պոյմանու, սակայն այն որերսւ մէջ միր պարապ և անգործ նեցուցած յամերու և ժամանակի հաշիւները ինզպէս կարգաւորելու եմք, մեր կենաց որերսւ հաշուտետրի մէջ : Քրտնի այն ծամերը միչ գործելու համար տըւած են և սզ անգործութեան :

3. Ամինուրեք միչցներ կորոնեն լոյսարածեղ և կրթութիւնն ամինսն մատղեղի և ամինուն համար պարտաւորիչ անիչ. կը ջանան ուսուցման եղանակներն կառաւարտ գործել, կազմաւորն ուսուցականն, ուպրոցներ հառուատել և կանոնաւորել, կը ճփնին դպրացական ղէնքերն քանմանիչ սուսցղի վեճակն ըարուքեշ և բարձեայնեշ և գրեթէ ամէն տեղ, ամէն էրկերներու մէջ ուրամական զոհողութիւններէ զեն խուռոիիր կըրթուի ժեամբ ժողովրդի վիճակն բարւոքելու համար : Մարդեպաւ կայր պիտի լինի, որ զը կորինայ տեսնիլ թէ ազգերու ապագան կախուած է իրենց կրթութեան աստեճանէն :

FIRST PAPER.—PART (A).

TRANSLATION FROM FRENCH INTO ENGLISH.

The figures in the margin indicate full marks.

Translate two of the following passages into English :—

(a) A son approche les villages furent deserts; les habitants 35
fuyaient de tous côtés. Charles en usa alors comme à Copenhague; il fit afficher par-tout qu'il n'était venu que pour donner la paix; que tous ceux qui reviendraient chez eux, et qui payeraient les contributions qu'il ordonnerait, serait traités comme ses propres sujets, et les autres poursuivis sans quartier. Cette déclaration d'un prince, qu'on savait n'avoir jamais manqué à sa parole, fit revenir en foule tous ceux que la peur avait écartés. Il choisit son camp à Altranstadt, près de la campagne de Lutsen, champ de bataille fameux par la victoire et par la mort de Gustave—Adolphe. Il alla voir la place où ce grand homme avait été tué. Quand on l'eut conduit sur le lieu: "J'ai tâché, dit-il, de vivre comme lui; Dieu m'accordera peut-être un jour une mort aussi glorieuse."

(b) Trois heures sonnèrent. Au troisième coup, Fantine se dressa 35
sur son séant, elle qui d'ordinaire pouvait à peine remuer dans son lit; elle joignit dans une sorte d'étreinte convulsive ses deux mains décharnées et jaunes, et la religieuse entendit sortir de sa poitrine un de ces soupirs profonds qui semblent soulever un accablement. Puis Faustine se tourna et regarda la porte.

Personne n'entra; la porte ne s'ouvrit point. Elle resta ainsi un quart d'heure, l'oeil attaché sur la porte, immobile et comme retenant son haleine. La sœur n'osait lui parler. L'ég lise sonna trois heures un quart. Fantine se laissa retomber sur l'oreiller.

Elle ne dit rien et se remit à faire des plis à son drap.

(c) Enfin, après douze jours d'une marche si pénible, pendant la 35
quelle les Suédois avaient consommé le peu de biscuit qui leur restait, cette armée exténuée de lassitude et de faim arrive sur les bords de la Desna, dans l'endroit où Mazeppa avait marqué le rendez-vous; mais au lieu d'y trouver ce prince, on trouva un corps de Moscovites qui avançait vers l'autre bord de la rivière. Le roi fut étonné; mais il résolut sur le champ de passer la Desna, et attaquer l'ennemi. Les bords de cette rivière étaient si escarpés qu'on fut obligé de descendre les soldats avec des cordes. Ils traversèrent la rivière selon leur manière accoutumée, les uns sur les radeaux faits à la hâte, les autres à la nage. Le corps des Moscovites, qui arrivait dans ce temps-là même, n'était que de huit mille hommes; il ne résista pas longtemps, et cet obstacle fut encore surmonté.

FIRST PAPER.—PART (B).

ESSAY.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Write an essay on *one* of the following subjects:— 15

- (a) Outdoor games, and their influence on character.
- (b) Any religious festival you have witnessed or taken part in.
- (c) Boy Scouts.

2. Write an essay on *one* of the following subjects, following the 15
general plan suggested:—

(a) *Fairy tales*: a brief account of any you have read: the charm and value of fairy tales—they please the imagination—impart useful lessons—excite interest in men and things—but are harmful if read to the detriment of more serious studies.

(b) *Companionship*: use of companions—to give help—to give advice—for the sake of amusement: result of companionship—seen in speech—in action: ‘as one lamp lights another, nor grows less, so nobleness enkindles nobleness’: the choice of companions, the keeping of companions.

ENGLISH.

SECOND PAPER.

Head Examiner :—REV. A. WARREN, M.A.

<i>Examiners</i> —	BABU JOGINDRANATH KANJILAL, M.A.
	REV. FATHER P. T. GEEVERGESE, M.A.
	BABU MANJUGOPAL BHATTACHARYYA, M.A.
	„ BIPINBIHARI DE, M.A.
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*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Give in your own words the substance of one of the following:—

(a)

Is life worth living? Yes, so long,
As there is wrong to right,
Wail of the weak against the strong,
Or tyranny to fight:
Long as there lingers gloom to chase,
Or streaming tear to dry,

20

One kindred woe, one sorrowing face
 That smiles as we draw nigh;
 Life is worth living still.
 So long as in this ocean realm,
 Victoria and her line
 Retain the heritage of the helm
 By loyalty divine;
 So long as flashes English steel,
 And English trumpets shrill,
 He is dead already who doth not feel
 Life is worth living still.

(b)

As we surpass our fathers' skill,
 Our sons will shame our own;
 A thousand things are hidden still
 And not a hundred known.
 And had some prophet spoken true
 Of all we shall achieve,
 The wonders were so wildly new,
 That no man would believe.
 Meanwhile, my brothers, work, and wield
 The forces of to-day,
 And plow the Present like a field,
 And garner all you may!
 You, what the cultured surface grows
 Dispense with careful hands:
 Deep under deep for ever goes,
 Heaven over heaven expands.

20

2. Give in simple English the substance of any *two* of the following passages:—

(a) Blessings on him that first invented sleep! It wraps a man all round like a cloak. It is a delicious moment certainly—that of being well nestled in bed, and feeling that you shall drop gently to sleep. The good is to come, not past: the limbs have been just tired enough to render the remaining in one posture delightful: the labour of the day is done. A gentle failure of the perceptions comes creeping over one, the spirit of consciousness disengages itself more and more, with slow degrees, like a mother detaching her hand from that of her sleeping child; the mind seems to have a balmy lid closing over it, like the eye:—'tis closing: 'tis more closing;—'tis closed.

20

(b) The principal source of gratification derived by the European traveller, on his sojourn in a country village in Hindustan, is the diversity of new and attractive objects, which are continually presented to view in his excursions through the neighbouring hamlets. The truth of this was never perhaps more fully developed to the mind of the traveller, than on the following occasion. It was about the hour of twelve or one, when we found ourselves in the midst of a forest, on our return from shooting. Suddenly there appeared in front of us a bevy of elephants, about fifty in number; they were proceeding to join some of the Company's infantry regiments, having halted in a plain of the forest, interspersed with lofty trees, the higher leaves of which were of singular extension, and formed a complete shelter from the sun's rays. Some of the elephants were of an enormous size. They appeared perfectly tame, suffering me to approach close to them, while they were occupied in helping themselves with their trunks to the leaves of trees, furnished by their keepers. The appearance of so many of these colossal animals, feeding them-

20

selves, and tossing immense boughs in the air with their huge trunks, was a superb spectacle. Some were on the ground, apparently dozing; others, busily engaged in cooling themselves by spiriting water through their trunks over their bodies, in fondling one another, or beating off the flies with the flaps of their ears. The bright glare of the atmosphere;—the wild grandeur displayed in the surrounding landscape;—the novel group of men and animals before me; altogether conveyed to my mind an enviable sensation of delight

(c) Hannibal's strong sense of being the instrument of his country's gods to destroy their enemies haunted him by night and possessed him by day. In his sleep he fancied that the supreme god of his fathers had called him into the presence of all the gods at Carthage, who were sitting on their thrones in council. There he received a solemn charge to invade Italy; and one of the heavenly council went with him, and with his army, to guide him on his way. He went on, and his divine guide commanded him, 'See that thou look not behind thee.' But after a while, impatient of the restraint, he turned to look back, and there he beheld a huge and monstrous form, thick set all over with serpents; wherever it moved, orchards and woods and houses fell crashing before it. He asked of his guide in wonder what was that monster form. The god answered, 'Thou seest the desolation of Italy: go on thy way, straight forward, and cast no look behind.' Thus, with no divided heart, and with an entire resignation of all personal and domestic enjoyments for ever, Hannibal went forth, at the age of twenty-seven, to do the work of his country's gods, and to redeem his early vow.

3. Expand the following:—

Four things come not back: the spoken word—the sped arrow—the past life—and the neglected opportunity.

4. Change the following into the indirect form of speech:—

I am a merchant from distant parts. On my journey last night I met with thieves, who stripped me of purse and all that I had; and now I must seek my only friend in this town, a squire at the King's palace. He will be glad, I know, to lend me what I ask. Only set me down at the palace gates, and I shall soon be in a position to pay you handsomely for this morning's kindness. Tell me your name, friend, and where you live.

5. (a) Fill up the blanks in the following:—

(i) You are much stranger—you used to be.

(ii) Wait here—I return.

(iii) Many years have passed—I saw you last.

(iv) Either you—I must go to Bombay to meet him.

(b) Form a noun from *fluid*, an adjective from *sympathy*, a verb from *liquid*, and construct a short sentence to illustrate the meaning of each of the words formed by you.

6. Construct sentences containing examples of (a) a noun clause, (b) an adjective clause, and (c) a cognate object.

7. (a) Parse the words italicized in the following:—

(i) Wait a *little*.

(ii) *Few* shall part where many meet.

(iii) *Why* are you late this morning?

(b) Construct short sentences using an appropriate preposition after any *three* of the following:—acceptable, fertile, productive, enlist.

8. Write sentences containing any *four* of the following:—

In spite of; in accordance with; all along; by degrees; all the same; as well as; once in a way; at first hand.

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Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

In awarding marks neatness and accuracy of the diagrams will be taken into account.

• *Either,*

1. (1) Multiply 390626 by 331779. 5

Or,

Find the G. C. M. of 78657 and 90275 5

- (2) A reservoir contains 218,703 gallons of water. How many cisterns, each holding 37 gallons, can be filled out of it, and how many gallons will be left in it when they are all full? 5

2. (1) Simplify 5

$$\frac{\frac{1}{2} + \frac{3}{4} + \frac{1}{2} \frac{5}{8}}{(\frac{2}{3} - \frac{3}{4}) \times 1 \frac{2}{13}}$$

- (2) Simplify $(1.4 - 0.362) \div (0.31 + 0.123 - 0.0005)$. 5

(Express the result in decimals.) •

Either,

3. (1) What will be the cost of paper 20 in. wide, at $3\frac{1}{2}d.$ a yard, for the walls of a room 21 ft. long, 15 ft. wide, and 10 ft. high? 5

Or,

Find the cost of 5 cwt. 2 qrs. 14 lb. of butter at £2s. 5s. 6d. per cwt. 5

Either,

- (2) What sum of money will amount to Rs. 1,532 4a. in three years at $4\frac{1}{2}$ per cent. simple interest? 5

Or,

A garrison of 420 have food enough to last them 35 days. After 5 days they are reinforced by 210 men, bringing no food with them. How much longer will the food last? 5

4. (1) Multiply *Either,* 5

$$1 - a + 2a^2 - 3a^3 \text{ by } 3a - 5 + 2a^2.$$

Or,

Divide $a + a^5 + a^6$ by $a^2 + a + 1$. 5

- (2) Find the H.C.F. of *Either,* 5

$$x^3 + 4x^2 - 5 \text{ and } x^3 - 3x^2 + 2$$

Find the L.C.M. of *Or,* 5

$$x^2 - (a - c)x - ac \text{ and } x^2 - (a + c)x + ac.$$

5. Solve

Either,

$$(1) \frac{x+1}{2} + \frac{x+2}{3} + \frac{x+3}{5} = 9; \quad 5$$

$$(2) y + z = 6, z + x = 4, x + y = 2. \quad 5$$

Or,

A motorist does a journey of 80 miles in 6 hours. During the first part of the journey he travels at 10 miles an hour, and during the latter part at 18 miles an hour. How far does he travel at each rate ? 10

6. Draw the graphs of $x+y=2$, and $x-y=0$, and find the co-ordinates of their point of intersection. 10

Either,

7. Show that if two sides of a triangle are unequal, the greater side has the greater angle opposite to it. 7

$ABCD$ is a quadrilateral, with AD its greatest and BC its least side. Prove that the angle at C is greater than the angle at A . 7

Or,

Show that two triangles are equal in every respect if two sides and the included angle of one triangle are respectively equal to two sides and the included angle of the other. 7

$ABCDEF$ is a regular hexagon. Show that ACE is an equilateral triangle. 7

Either,

8. Show that a straight line drawn from the centre of a circle to bisect a chord which is not a diameter is at right angles to the chord. 7

Show that two chords of a circle cannot bisect each other unless both of them pass through the centre. 7

Or,

Show that the tangent at any point of a circle is at right angles to the radius through the point. 7

Show that all chords parallel to the tangent at any point of a circle are bisected by the radius through the point. 7

Either,

9. Construct a parallel to a given straight line through a given point. 12

(Statement as well as justification of the constructions is required.)

Or,

Draw a straight line at right angles to a given straight line from a given point without it. 12

(Statement as well as justification of the constructions is required.)

MATHEMATICS.

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Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

In awarding marks neatness and accuracy of the diagrams will be taken into account.

1. (1) Find the square root of 6

1000014129.

- (2) Find the dimensions of a tank which is 2.56 metres deep and which holds 3,000 litres, the length of the tank being three times the width. 6

2. Find the value of 8

$$\frac{1}{2} + \frac{2}{30} + \frac{3}{400} + \frac{4}{5000} + \dots$$

correct to four places of decimals.

Or,

Find the value of $\frac{0.34567 \times 0.73456}{0.67345}$, correct to four places of decimals. 8

3. (1) Solve $(x-7)(x-19)=64$. 6

(2) Find the square root of 6

$$49x^4 + 36y^4 + 109x^2y^2 - 79x^3y - 60xy^3.$$

Either,

4. (1) Show directly that the sum of n terms of an A.P. is equal to n times half the sum of the first term and the last term. 6

Or,

Find directly the sum of n terms of the G.P., 6

$$1 + \frac{1}{2} + \frac{1}{2^2} + \dots$$

Either,

(2) If a be the first term of a G.P., l the n^{th} term, and P the product of the first n terms, show that 6

$$P = (al)^{\frac{n}{2}}.$$

Or,

Find the sum of n terms of the series 6

$$1^3 + 2^3 + 3^3 + \dots$$

5. Trace the graph of 10

$$y = x^2 - 4x + 5 \text{ from } x=0 \text{ to } x=4,$$

and find the least value of y .

6. Draw a circle of given radius to touch two intersecting straight lines. Exhibit all the solutions 10

(Only traces of constructions are required.)

Either,

7. Show that if two triangles are equiangular their corresponding sides are proportional. 12

Or,

Show that the internal bisector of the angle of a triangle divides the opposite side internally in the ratio of the sides containing the angle. 12

8. Show that the perpendiculars from the vertices of a triangle on the opposite sides pass through a common point O , which is the centre of the inscribed circle of the triangle whose vertices are the feet of the perpendiculars. 12

9. In an obtuse-angled triangle show that the square on the side opposite to the obtuse angle is greater than the sum of the squares on the other two sides by twice the rectangle contained by one of them and the projection on it of the other. 12

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{ MAHAMAHOPADHYAYA SADASIV MISRA.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English *any three* of the following extracts :—

15

(a) ततः सर्वे ते सारमेयास्तं शृगालमज्ज्ञानन्तो यथाभीष्टदिशं जग्मुः । चण्डरवोऽपि वूरतरं प्रदेशमासाद्य काननाभिमुखं प्रतस्थे ।

(b) अथ तद्वचनमाकर्ण्य प्रहृष्टमनास्तेनैव सह गुरुजनानुज्ञातः शुभेऽहनि देशान्तरं प्रस्थितः । तत्र च धर्मबुद्धिप्रभावेण भ्रमता पाप-बुद्धिनापि प्रभूततरं वित्तमासादितम् ।

(c) भोः क्रथनक ! मा त्वं ग्रामं गत्वा भूयोऽपि भारोद्वहनकष्ट-भागी भूयाः । अत्रारण्ये निर्विशङ्को मरकतसदृशानि शष्पाग्राणि भक्षयन् मया सह वस ।

(d) तद् यदि मम त्वं सुदृढं सत्यस्तदस्य गजापसदस्य कोऽपि चधोपायश्चिन्त्यताम्, यस्यानुष्ठानेन मे सन्ततिनाशदुःखमपसरति ।

2. (a) Translate *any two* of the following ślokas into English :—

12

(1) दृष्ट्वा मुनिगणाः सर्वे पार्थिवाश्च महौजसः ।

पित्रन्त इव चतुर्भिः पश्यन्ति स्म सुहृर्मुहुः ॥

(2) तस्मिंस्तु धरणी देवी बाहुभ्यां गृह्य मैथिलीम् ।

स्वागतेनाभिनन्द्यनामासने चोपवेशयत् ॥

(3) अयं स समरस्त्राद्यो भ्राता मे शुभलक्षणः ।

यदि पञ्चत्वमापन्नः प्राणैर्मै किं सुखेन वा ॥

(4) जेदृशं दृश्यते रूपं गतासूनां विशाभ्यते ।

विषादं मा कृथा वीर सप्राणोऽयमरिन्द ॥

(b) Expound the *samāsas* in *any three* of the following compound words used in the above extracts :—

3

(1) महौजसः ; (2) समरस्त्राद्यौ ; (3) शुभलक्षणः ; (4) गतासूनाम् ;

(5) सप्राणः ।

(c) Is गृह्य in extract (2) rightly used ? If not, give the right form.

2

(d) Change the voice of पश्यन्ति in śloka (1), showing the corresponding changes in the śloka.

4.

(e) Parse सुखेन in extract (3).

1

3. Join in *sandhi* (सन्धि) any three of the following :—

3

(a) घावन् + चलितः ; (b) तत् + हितम् ; (c) धीमन् + आगतः

(d) हरिः + रक्षति ।

4. यदाऽश्वौघं धनुरायम्य चित्रं विद्धुं लक्ष्यं पातितं वै पृथिव्यान् ।

कृष्णां हृतां प्रेक्षतां सर्वराज्ञां तदा नाशंसे विजयाय सज्जय ॥

(a) Give in English the story referred to in the above śloka.

3

(b) Do you find any grammatical anomaly in प्रेक्षताम् and सर्व-
राज्ञाम् ? If so, give the correct forms.

5. Give in English the full meaning of any two of the following :—

6

(a) आ यदि क्रियते गङ्गा स किं नाश्नात्युपानहम् ।

(b) नहि सुमय्य सिंहस्य प्रविशन्ति मुखे मृगाः ।

(c) उपदेशो हि मूर्खाणां प्रकोपाय न शान्तये ।

6. Form two Sanskrit sentences, each having any one of the follow-
ing :—

4

(a) सरोवरे ; (b) ग्रहीतुम् ; (c) नितौद्य ; (d) शोभन्ते ।

7. (a) Decline सखि (in the masculine gender) in the accusative case
(द्वितीया विभक्ति), अहम् (in the feminine gender) in the possessive case
(षष्ठो विभक्ति), and महम् (in the neuter gender) in the nominative case
(प्रथमा विभक्ति) .

6

(b) Conjugate सद् in लट् (present tense) in the third person only ;
या in लोट् (imperative) in the second person only ; and ब्रू in लिट्
(past tense) in the first person only.

6

8. Correct the errors, if any, in any three of the following :—

6

(a) प्रजासु सन्नाजस्य महान् दया ।

(b) नरपत्युरादेशमिदम् ।

(c) तस्य मने सुखा नास्ति ।

(d) ब्रीन् फलीन् आनीयताम् ।

9. Translate any five of the following extracts into Sanskrit :—

25

(a) There is an excellent city, named Ratnapura, and in it there
were two Brāhmaṇas, called Śiva and Mādhava.

(b) King Śaktideva, who was a worshipper of Vishnu, went one
day to the garden of the gods, and there saw many celestial flowers.

(c) In Ujjayinī there lived long ago a king named Puṇyasena,
and once on a time a powerful king came and attacked his kingdom.

(d) Thus reflecting, the sovereign went to the temple of Durgā,
and there remained without food and drink for a long time.

(e) The king Mahīpāla mounted his elephant, and after roaming
through numerous forests returned to his own island.

(f) At Pāṭaliputra there was a merchant of the name of Dhana-
pālita. He travelled through different countries and amassed a large
fortune.

(g) On the next day the ascetic went with his disciple to the her-
mitage of a yogi, and there on the side of a river he sat in devotion.

SANSKRIT.

ADDITIONAL PAPER.

Head Examiner—BABU ASUTOSH SASTRI.

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Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English any one of groups A, B, C:—

10

GROUP A.

आपदं प्राप्नुयात् स्वामी यस्य भृत्यस्य पश्यतः ।

प्रायेषु विद्यमानेषु स भृत्यो नरकं व्रजेत् ॥

स्वाम्यर्थं यस्त्यजेत् प्राणान् भृत्यो भक्तिसमन्वितः ।

स परं पदमाप्नोति जलामरणवर्जितम् ॥

GROUP B.

अलब्धं चैव लोप्सेत लब्धं रक्षेद्भक्षया ।
 रक्षितं वद्वेष्टेत् सम्यग् वृद्धं तीर्थेषु निक्षिपेत् ॥
 अश्विनस्य क्षयं दृष्ट्वा वस्मोकस्य च सञ्जयं ।
 अन्नं दिवंसं कुर्याद् दानाध्ययनकर्मभिः ॥

GROUP C.

ऊचुः परस्परं चेदं सर्वं एव समाहिताः ।
 उभौ रामस्य सदृशौ विम्वाद् विम्बिवोदृतौ ॥
 जटिलौ यदि न स्यातां न वक्त्रकलधरौ यदि ।
 विशेषं नाधिगच्छामो गायतो राघवस्य च ॥

2. (a) Disjoin the *sandhi* either in सर्वं एव or in गायतो राघवस्य च 2
 in group C.

(b) Account for the case-pending either in भृत्यस्य पश्यतः or in 2
 प्राणेषु विद्यमानेषु in group A.

3. Either, Explain fully in English the allusion in— 6

यदाप्राप्तं कर्णदुर्योधनाभ्यां बुद्धिं कृतां निग्रहे कोशधस्य
 तं चात्मनं बहुधा दर्शयानं तदा नाशंसे विजयाय सञ्जय ॥

Or, Give in English the story why and how the monkey chief
 fetched the Gandhamādana hill.

4. Translate into English any three of the following extracts:— 30

A.

अन्यस्मिन्नहनि राजा प्रातःकृत्यानि समाप्य सभां प्रपू ।
 पण्डिताः कवयो गायका अन्ये च समाजसुः । कालिदासमेकमनागतं
 वीक्ष्य राजा स्वसेवकमेकं तदाह्वानय प्रेषयामास । स गत्वा कालिदासं
 नत्वा प्राह—“कवोन्द् त्वामाव्हयति भोजनरेन्दुः” इति ।

B.

ततो राजा माघं भृतं नर्मदातीरं नीत्वा यथाविधि संस्कार-
 मकरोत् । तत्र च माघपत्नी वद्धौ प्रविष्टा । तयोश्च पुत्रवत् सर्वं चक्रे
 भोजः । ततो दिवं गते माघे राजा कालिदासविद्योऽपि कृशोऽभूद्
 दिने दिने ।

C.

कदाचिद् देवसभायां महेन्द्रो नारदं प्राक्ष—“मुने, इदानीं भूलोके का नाम वार्त्ता” इति । ततो नारदः प्राह—“सुरनाथ, न किमपि आश्चर्यम् । किन्तु धारानगरवासो श्रीभोज भूपालो रोग-पीडितः । अत्यन्तमस्वस्थो वर्त्तते । स तस्य रोगः केनापि न निवारितः” । इति ।

D.

राज्ञा उक्तं—“भो मन्त्रिन्, यदि मम त्वं प्रियस्सर्हि अमुं शारदानन्दं मारय” ! मन्त्रिणापि तथास्तु इत्युक्त्वा लोकानां पुरतो धृतः शारदानन्दो बह्वृक्ष । तस्मिन्नवसरे शारदानन्देनोक्तम्—अहो राजा न कस्यापि प्रियो भवतीति लोकोक्तिः सत्या ।

E.

तस्मिन् अवसरे राजमन्दिरे राजपुत्रः केनापि मारित इति महान् कोलाहलो जातः । राज्ञापि स्वपुत्रानुसन्धानाय सर्वे राजपुरुषाः प्रेषिताः । ततस्ते यावद् विपणिमध्ये विलोकयन्ति, तावद् आभरण-हस्तो देवदत्तभृत्यो दृष्टः ।

F.

तच्छ्रुत्वा राजा स्वमनसि अचिन्तयत्—असौ अनृतं वदति । अस्तु तथापि अर्थो वर्त्तते । सर्वथास्य मनोरथः पूरणीयः । इति विचार्य नगरमेकं कारयित्वा तस्मिन्नगरे तमभिषिषेच । पञ्चाशद् गजान्, योगानां सहस्रं तस्मै ददौ । चण्डिकापुरमिति च नगरस्य नाम कृतम् ।

5. Translate into Sanskrit *any five* of the following :—

25

(a) By order of his eldest brother, Lakṣmaṇa abandoned Sitā in a forest infested by wild animals.

(b) A junior must not disobey the order of his senior, even if the order is disagreeable.

(c) King Hariścandra gave everything to a Brāhmin. For this he went to heaven after death.

(d) Truthfulness is the highest virtue; be always truthful.

(e) All my desires are fulfilled; God bless you, sir.

(f) King Bhagiratha pleased Brāhma by his austerities; ‘Gangā’ came down from heaven.

(g) Prayers were offered in every quarter of the city for the life of the great king.

(h) All was in vain; the emperor died in the evening.

(i) The queen burnt herself on the funeral pyre of her beloved husband.

6. Make necessary corrections in *any five* of the following :—

10

- (a) इयं नर्तकी सुगायकी ।
- (b) न बाधुर्मरणं विभेति ।
- (c) बहुपत्न्या अयं ग्रामः ।
- (d) राजा भूरि धनमददत् ।
- (e) अलंघ्यो विश्वपत्युर्नियमः ।
- (f) अत्र सर्वे लक्ष्मीमन्तः ।
- (g) वर्द्धन्तं रोगं न उपेक्षत ।
- (h) उभेऽत्र नद्यो मिलिते ।
- (i) गृहाणामुपरिषु धूमरेखाः ।
- (j) प्रातरद्य वृष्टिर्भूत् ।

7. Explain and illustrate fully the use of **नवत्** or **स्यत्** .

5

8. Shorten *any two* of the following sentences by the use of suitable **तद्धितान्त** words for the underlined :—

- (a) अयं घटो सुदो विकारः ।
- (b) अयं राजा सर्वभूमरर्धोश्चरः ।
- (c) यथा कदम्बं भवति तथा इयं पृथिवी ।
- (d) इदं वस्त्रं कषायेण रक्तम् ।

9. Distinguish the uses of :—

6

Either, विंशतिः and विंशतमः ;

Or, महाराजः and महाराजा .

PALI.

Paper-setters— $\left\{ \begin{array}{l} \text{M.M. DR. SATISCHANDRA VIDYABHUSHAN,} \\ \text{M.A., PH.D.} \\ \text{BABU SAILENDRANATH MITRA, M.A.} \\ \text{,, NILMANI CHAKRABARTI, M.A.} \end{array} \right.$

Head Examiner—MAHAMAHOPADHYAYA DR. SATISCHANDRA VIDYABHUSHAN, M.A., PH.D

COMPULSORY PAPER.

Examiners— $\left\{ \begin{array}{l} \text{BABU AMULYACHARAN VIDYABHUSHAN.} \\ \text{,, MAHENDRAKUMAR GHOSH, M.A.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English *any five* of the following :—

15

(a) So 'sādhū' ti taṃ passena nipajjāpetvā 'ko jānāti kiṃ p' esa karissati' ti cintetvā yathā mukhaṃ pidahitum na *sakkoti* tathā tassa adharo'tthe ca uttaro'tthe ca daṇḍakaṃ t'apetvā mukhaṃ pavisi'vā atthiko'tiṃ tundena pahari.

(b) Sve uposātho, tumhe tayo pi janā silaṃ samādiyitvā uposa-thikā hotha, sil' patitthāya innadānaṃ mahapphalaṃ hoti tasmā *yācake* sampatte tumhehi khāditabbāhārato datvā khādeyyātha.

(c) So mahājane sannipatite nāvāya dhure t'atvā pakkhe vidhūnitvā madhurassaraṃ nicchāretvā nacci. Manussā taṃ disvā somanassajātā 'etaṃ ayyo sobhaggapattaṃ susikkhitasākuṇarājānaṃ *amhūkaṃ* dethā' ti āhaṃsu.

(d) Ath' ekacce abhirāhiṃsu ekacce vāladhiṃ gaṇhiṃsu ekacce añjaliṃ paggahe'tvā atthaṃsu yeva. Bodhisatto *antamaso* añjaliṃ paggahe'tvā thite sabbe pi te adḍhateyyasate vāñije attano ānu-bhāvena janapadaṃ netvā sakasaka'tthānesu patitthāpetvā attano vasana'tthānaṃ agamāsi.

(e) So hatthena tassa sarīraṃ parimadditvā 'nāyaṃ maṅgala-hatthi bhavitum anucchaviko, pacchāvāmanakadhātuko esa, *etaṃ* hi mātā vijāyamaṇā amsena paṭicchitum nāsakkhi, tasmā bhūmiyaṃ patitvā pacchimapādehi vāmanakadhātuko jāto' ti āha.

(f) Taṃ khaṇaṃ yeva pācīnalokadhātuto paripuṇṇaṃ canda-maṇḍalaṃ uttahi. Brāhmaṇo nakkhattam'olokento 'dhanavassāpanaka-nakkhattayogo laddho, kiṃ mē *dukkhena* anubhūtenā, mantaṃ parivattetvā rātanavassaṃ vassāpetvā corānaṃ dhanāṃ datvā yathāsukhaṃ gamāssāmi' ti cintesi.

(g) Rājā sāsanaṃ sutvā va 'coraṃ gaṇhissāma' ti nikkhami. So ekaṃ bheritalaṃ pahari, caturaṅgiṇi senā *parivāresi*. Rāḍḍho avattharaṇabhāvaṃ ſiavtvā dadhighaṭaṃ vissajjesi, mahānadi pavatti, mahājāno dadhiṃhi osiditvā nikkhamitum nāsakkhi.

2. (a) Parse *any three* of the italicized words in the above extracts :—

3

(b) Name and expound the *samāsas* in *any two* of the following :—

3

adḍhateyyasate, pacchāvāmanakadhātuko, and pācīnalokadhātuto.

(c) Conjugate *any three* of the following in the 3rd person singular only :—

han —in the present.
pat —in the future.
pad —in the aorist.
muc—in the imperative,

3. Give in English the purport of *either* of the following couplets :— 5

- (a) Nāccanta nikatipaṇṇo nikatyā sukham edhati,
 āradhe nikatipaṇṇo bako kakkatakā-m-iva.
 (b) Aniccā vata saṅkhārā uppādavayadhammino,
 uppajjitvā nirujjhanti, tesam vūpasamo sukho.

4. Give in simple English the story referred to in *either* of the following stanzas :— 7

- (a) Yato sarāmi attānaṃ yato patto 'sni viññutaṃ
 nābhijānāmi sarāmecca ekapāṇaṃ pi himsitaṃ,
 etena saccavajjena sotthiṃ nāvā nivattatu.
 (b) Āsimseth' eva puriso, na nibbindeyya paṇḍito
 passāmi vo 'haṃ attānaṃ, yathā icchiṃ tathā ahū.

5. Translate into English *any two* of the following extracts :— 10

- (a) Anāvaranaññaṇaṃ taṃ pesesi dipaduttamo
 addasa virājo Saṭṭhā Laṅkā dipavaruttamaṃ
 Sudeśaṃ utusanipannaṃ subhikkhaṃ ratanākaṃ
 pubbabuddhamanuciṇṇaṃ ariyagāṇasevitaṃ.
 Laṅkā dipavaraṃ disvā sukhettaṃ ariyālayaṃ
 natvā kālaṃ akālaṃ ca vicintesi anuggahā.
 (b) Agyāgāre ahināgaṃ dāmesi purisuttama
 disvā acchariyaṃ sabbe nimantiṃsu Tathāgataṃ :
 ' Hemanta-cātumāsamhi idha vihara Gotama,
 mayaṃ taṃ niccabbhattena sadā upatthahāse.
 Uruvelāyaṃ hemante vasamāno Tathāgato
 jāṭile sapārisajje vinesi purisāsabho.
 (c) Atha rakkhasā yakkhagaṇā ca dūtṭhā
 dīpaṃ imaṃ Laṅkāciranivāsitaṃ
 dadāmi sabbaṃ Gīridīpaporaṇaṃ
 vasantu sabbe supajā anighā.
 Imaṇca Laṅkātaḷaṃ mānusaṇaṃ
 porāṇakappatthitavutthavāsaṃ,
 vasantu Laṅkātaḷe mānusa bahū
 pubbe va Ojāvaramaṇḍasādisaṃ.

Either,

6. Describe Buddha's visit to Ceylon. 7

Or,

Give the substance of the following couplets in English :—

Khanti ca sovacassatā samaṇānaṃca dassanaṃ
 kālena dhammasākacchā etam maṅgalamuttamaṃ.
 Phutthassa lokadhammehi cittaṃ yassa na kampaṭi
 asokaṃ virajam khemaṃ etam maṅgalamuttamaṃ.

7. (a) Analyse the *sandhis* in *any four* of the following :—*agyāgāre*, *purisāsabho*, *gūnehupeto*, *svāhaṃ*, and *sabbhireva*. 4

(b) Decline fully *any two* :—*aggā*, *naḥḥi*, *utu*. 6

(c) How are causative verbs formed in Pāli? Give the 3rd person singular causative forms of *any four* of the following roots:—
su, kar, khād, gam, and pac. 6

8. Correct the errors in *any three* of the following:— 6

- (a) Antevāsikena upajjhāyassa pāde siram vanditabbo.
- (b) Coro gālhena kaccham bandhitvā palāyini.
- (c) Nāham ācariyam ārocemi.
- (d) Pitari accaye sabbamova dhanam bhikkhave dassāmi.
- (e) Alam bho pativādam, ācariyena khamāpeyya.

9. Translate into Pāli *three* from Group A, and *two* from Group B:— 25

A.

- (a) He shows great eagerness to learn.
- (b) The diamond is the most brilliant of all jewels.
- (c) Wicked men are always miserable.
- (d) Evil company is ever to be avoided.
- (e) The king was seated on a throne.

B.

(a) It became darker; he thought that he would have to spend the night in the street, and tears rolled down his cheeks.

(b) At last he began to cry aloud. A kind man who happened to pass by that way stopped and asked the cause of the child's distress.

(c) The boy felt a great deal relieved and told him everything. The kind man pitied him and brought him safe home.

PĀLI.

ADDITIONAL PAPER.

Examiner—BABU GOKULDAS DE, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English *any one* of the following extracts:— 10

(a) Tato sakunaganā Himavantappadeso ekasmiṃ pitthipāsāṇe sannipatitvā 'manussesu rājā paññāyati, tathā catuppadesu c'eva macchesu ca; amhākaṃ pun'antare rājā nāma n'atthi, appatissavāso nāma na vattati, amhākaṃpi rājānaṃ laddhuṃ vattati; ekaṃ rājatthāne thapetabbayuttakam jānāthā' ti; te tādisaṃ sakunaṃ olokayamānā ekaṃ ulūkaṃ rocetvā 'ayaṃ no ruceati' ti āhamsu. Ah'eko sakuno sabbesaṃ/ajjhāsayagahanattham tikkhattuṃ sāvesi. Tassa sāventassa dya sāvanā adhiśvāsetvā taṭṭiyasāvanāya eko kāko utthāya 'tittha tva, etassa imasmiṃ rājābhisekakāle evarūpaṃ mukhaṃ, kuddhassa kīdisaṃ bhavissati ti, iminā hi kuddhena olokitaṃ mayam tattakapāle pakkhittatīlā viyaḍ tattha tatth'eva bhijjissāma.'

(b) So Sākhāṃ pakkosāpetvā āha 'samma bahū migā nassanti, ekamsena maritabbe sati ito patthāya mā kandena mige vijjhantu, dhammagandikatthāno migānaṃ vāro hotu, ekadivasaṃ tava parisāya vāro pāpunātu, ekadivasaṃ mama parisāya vāro pāpunātu; vārappatto migo gantvā dhammagandikāya gīvaṃ thapetvā nipajjatu, eyaṃ sante migā vaṇiṭṭā na bhavissanti.' So 'sādhū' ti sampaticechi. Tato patthāya vārappatto migo gantvā dhammagandikāya gīvaṃ thapetvā nipajjati. Bhattakārako āgantvā tattha nipannakaṃ eva gahetvā gacchati. Ath'ekadivasaṃ Sākhāṃgassa parisāya ekissā gabbhinimigiyā vāro pāpuṇi. Sā Sākhāṃ upasāṅkamitvā 'sāmi ahaṃpi gabbhinī, puttakaṃ vijāyitvā dve janā vāraṃ gamissāma, mayhaṃ vāraṃ atikkamehī ti āha.

2. (a) Analyse *any two* of the following compounds:— 'catupadesu,' 'pakkhittatīlā,' and 'vārappatto.' 2

(b) Give the roots of *any two* of the following words, and conjugate them in the present (vattunānā) in all the numbers in the first person:— 'pakkhittā,' 'gahetvā,' 'sante,' and 'vijāyitvā.' 3

Either,

(c) Give the main incidents in the life of Buddha from his approaching the Bodhi tree to his first visit to Ceylon. 5

Or,

Narrate the story alluded to in the following couplet:—

Evañce sattā jāneyyuraṃ dukkhāyaṃ jātisambhavo,
na pāṇo pāṇināraṃ haññe pāṇaghātī hi socati.

3. (a) Frame short sentences in Pāli to illustrate the use of *any three* of the following:— 6

- (i) *Kattarī tatiyā* (third case-ending used with the agent).
- (ii) *Tumatthe catutthī* (fourth case-ending in signifying the meaning of the suffix *tuṃ*).
- (iii) *Hetuatthe pañcamī* (fifth case-ending denoting cause).
- (iv) *Niddhāraṇe chaṭṭhī* (sixth case-ending denoting specification).

(b) Give the ablative and locative forms of *any three* of the following bases:— 'Brahmā,' 'Attā,' 'Sakhā,' and 'Rājā.' 6

(c) How are perfect participles formed in Pāli? Give the perfect participles of *any three* of the following roots:—kar, gam, vac, dā, and car. 4

(d) How many kinds of compounds are there in Pāli? Name them, and give an example of each of them. 6

(e) Correct *any one* of the following:— 3

- (i) Tāya rājāya dhītā ativiyaṃ piyā ahoṣi.
- (ii) Sve ahaṃ tassa saha tattha agamāsi.

4. Translate into Pāli *any four* of the following:— 25

(a) All the inhabitants of the kingdom went together to the gate of the palace and made a loud tumult.

(b) The king standing near the window asked, 'Why are these men shouting so loudly?'

(c) The brahmins on the next day bathed early in the morning, and going there stood at the eastern gate.

(d) My lord, my father is dead, and my mother is ill. So I must go quickly and see her.

(e) 'Do you know what has happened to your mother during your absence from home?' 'No sir, I do not know.'

5. Translate into English *any two* of the following extracts:—

30

(a) Rājā pi'ssa dhanavassam vassanto viya bahum dhanam mahantaṃ ca yasaṃ adāsi. Evaṃ Bodhisatte tattha vasante 'Asadisakumāro Bārānasiyaṃ n'atthi' ti satta rājāno āgantvā Bārānasiṃ parivāretvā 'rajjam vā detu yuddham vā' ti rañño pannaṃ pesesum. Rājā maraṇabhayaabhīto 'kahaṃ me bhātā vasatī' ti pucchitvā 'ekam sāmantarājānaṃ upatthahati' ti sutvā 'mama bhātike anā-gacchante mayhaṃ jīvitam n'atthi, gacchatha tassa mama va-anena pāde vanditvā khamāpetvā gaṇhitvā āgacchathā' ti dūte pesesi. Te gantvā Bodhisattassa taṃ pavattim ārocesum.

(b) Rañño pana Paṇḍavo nāma maṅgalasso tassa Giridanto nāma assabandho, so khañjo ahoṣi. Asso mukharajjuke gaḥetvā taṃ purato purato gacchantam disvā 'maṃ eso sikkhāpetī' ti saññāya tassa anusikkhanto khañjo ahoṣi. Tassa khañjabhāvaṃ rañño ārocesum. Rājā vejje pesesi. Te gantvā assassa sarire rogaṃ apas-santā 'rogaṃ assa na passāmā' ti rañño kathayim-su. Rājā Bodhi-sattam pesesi: 'gaccha vayassa, ettha kāraṇaṃ jānāhi' ti. So gantvā khañjassabandhasaṃsaggena tassa khañjabhūtabhāvaṃ ſatvā rañño taṃ attham ārocetvā 'saṃsaggadosena nāma evaṃ hotī' ti dassento pathamam gātham āha.

(c) Bodhisatto tena saddhiṃ natisanthāraṃ katvā 'kim māṇava rājā dhammiko' ti pucchi. 'Āma bhante rājā dhammiko, bhariyā paṇ'assa kālakatā, so tassā sariraṃ doniyaṃ pakkhip'petvā vippala-pamāno nipanno, ajj'assa sattamo divaso, kissa tumhe rājānaṃ evarūpā dukkhā na mocetha; yuttaṃ nu kho taṃhādisesu silavan-tesu vijjamañnesu rañño evarūpaṃ dukkhaṃ anubhavitum' ti. 'Na kho ahaṃ māṇava rājānaṃ jānāmi, sace pana so āgantvā maṃ puccheyya ahaṃ ev'assa tassā nibbattaṭṭhānaṃ āeikkhitvā rañño santike yeva taṃ kathāpeyyaṃ' ti. 'Tena hi bhante yāva rājānaṃ ānemi tāva idh'eva nisidatha.'

ARABIC.

Paper-setters— { SHAMS-UL-ULMA, ABU NASR MUHAMMAD
WAHEED, M.A.
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COMPULSORY PAPER.

Examiner—MAULAVI HIDAYAT HOSSAIN.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English the first and either the second or the third of the following extracts:—

A.

12

إذا لم اقم يوماً لحقتك بالشكر
فقل لى لمن اعددت فظمى مع الغثر

لقد جدت لى قبل السؤال بانعم
 اتتنى بلا مطل لديك و لا عذر
 فما لى لا اعطى ثناؤك حقه
 و اثنى على عليك فى السر و الجهر
 ساشكر ما اوليتنى من صنائع
 يخف لهما فمى و ان اثقلت ظهري

B.

13

فلما بلغ الحين الذى اراد الله عز و جل ان ينفخ فيه
 الروح قال للملائكة اذا نفخت فيه من روحي فاسجدوا له فلما
 نفخ فيه الروح فدخل الروح فى رأسه عطس - فقالت الملائكة
 قل الحمد لله فقال الحمد لله فقال الله عز و جل رحمك
 ربك - فلما دخل الروح فى عينيه نظر الى ثمار الجنة - فلما
 دخل الروح فى جوفه اشتهى الطعام فوثب قبل ان تبلغ
 الروح رجليه عجلان الى ثمار الجنة - فذلك حين يقول خلق
 الانسان من عجل *

C.

13

ثم انهم اعطوني البضائع فوجدت اسمى مكتوبا عليها - و لم
 ينقص منها شئ ففتحتها و اخرجت منها شيئا نفيسا غلى
 الثمن - و حملته معى بحرية المركب - و طلعت به الى الملك
 على سبيل الهدية - و اعلمت الملك بان هذه المركب التى
 كنت فيها لا و اخبرته ان بضاعتى وصلت الى بالتمام و الكمال
 و ان هذه الهدية منها - فتعجب الملك من ذلك الامر غاية

العجب - وظهر له صدقى فى جميع ما قلته - وقد احببني
 محبة شديدة و اكرمنى اكراما زائدا و وهب لى شيئا كثيرا
 فى نظير هديتى. *

2. Answer any four of the following :—

(a) Vocalize fully extract A, question 1. 5

(b) Account for the اعراب of the words underlined above. 5

(c) Note, with examples, the use of each of the following ;— صار 5

كان.

(d) Decline المضارع of the root اخذ in the form افتعال . 5

Add diacritical points.

(e) Write the تعليل of :— يجد - دام - قل . 5

(f) Explain the modes of the اعراب of :— الجمع المونث السالم 5

المثنى,

(g) Construct five examples of الجملة الاسمية, each consisting of 5
 more than two words.

3. Give in your own words one of the following :— 15

Either, Story of Sindbad's second voyage.

Or, Story of the Peacock and his consort.

4. Analyse, using the technical terms of Arabic grammar :— 7

فلما وصلت الارض اسرعت و فككت الرباط من رجليه و انا
 خائف منه .

5. Answer any one of the following :—

(a) Explain the following :— 8

لا تبتئس و انس الهموم جميعها

ان الهموم تزيل لب العازم

لا ينفذ التدبير عبداً عاجزاً

فاتركه تسلم فى نعيم دائم

(b) Write with vowel-signs the opposite numbers of :— ماء - هكاز 8

أنا - طاروس - صبحان - يشيل - اشكال - جوار .

(c) Give in Arabic the substance of the Prophet's letter to 8
 Khalid ibn al-Walid regarding the conversion of Bani 'l-Harith.

6. Translate into Arabic *any ten* of the following sentences :—

25

Take the book in your hand.
 He went home at twelve o'clock.
 What is in your right hand ?
 The poor man has thrown it away.
 If we look at the sun for a long time we shall become blind.
 What is the price of that knife ?
 The price of that is five rupees.
 The sun in the evening goes down in the west.
 The stream issued out of the valley.
 Virtuous men are always respected.
 He is the tallest man in the room.
 He is more learned than his brother.
 To get there in time is impossible.
 How will you finish your journey ?
 They wished to avoid travelling in the heat of the day.

ARABIC.

ADDITIONAL PAPER.

Examiner—MAULAVI MD. IRFAN, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English :—

10

فلما وصل اليه ضحك النجار في وجهه وقال بلسان فصيح
 ايها الملك ما حب الباع الطويل اسعد الله مساك و مسعك
 و زاد في شجاعتك و قواك اجرني مما دهاني و بشرة رمانى
 لاننى ما وجدت اى نصيرا غيرك ثم ان النجار وقف بين يدي
 الاسد و بكى و اشتكى - فلما سمع الشبل بكاه و شكواه قال له
 اجرتك مما تخشاه فمن الذى قد ظلمك و ما تكون ايها
 الوحش الذى ما رأيت عمرى مثلك و لا احسن صورة و افصح
 لسانا منك فما شأنك *

2. (a) Parse the underlined words.

6

- (b) Give مضارع of وقف in the third person singular and explain the form it assumes.

4

3. Translate into English *any one* of the following:—

A.

18

رُؤى أن غديرا كان عنده عشب و كان فيه بطنان و كان فى الغدير سلحفاة بينها وبين البطتين مودة و صداقة فانفق ان غيض ذلك الماء فجاءت البطتان لوداع السلحفاة و قالتا السلام عليك فاننا ذاهبتان عن هذا المكان لاجل نقصان الماء عنه فقالت انما يبين نقصان الماء على مثلى التى كانى السفينة لا اقدر على العيش الا بالماء فاما انتما فتقدران على العيش حيثما كنتما فاذهبا بى معكما - قالتا نعم قالت كيف السبيل الى حملى - قالتا نأخذ بطرئى عود و تقبضين بفيلك على وسطه و نظير بك فى الجو - و اياك اذا سمعت الناس يتكلمون ان تنطقى - ثم اخذتاها فطارتا بها فى الجو فقال الناس عجب - سلحفاة بين بطتين قد حملتاها - فلما سمعت ذلك قالت فقأ الله اعينكم ايها الناس - فلما فتحت فاهها بالنطق وقعت على الارض فماتت *

B.

18

قيل ان قردا رأى نجارا يشق خشبة و هو راكب عليها - و كلما شق منها ذراعا ادخل فيها وتدا - فوقف ينظر اليه و قد اعجبه ذلك - ثم ان النجار ذهب لبعض حاجته - فقام القرد و تكلف ما ليس من شأنه فركب الخشبة و جعل وجهه نحو الودت و ظهره نحو الخشبة فتدلى ذنبه فى الشق - و نزع الودت - فلزم الشق عليه فكاد يغشى عليه من الالم - ثم ان النجار جاء فوجده على تلك الحالة - فاقبل عليه يضربه فكان

ما لقي من النجار من الضرب اشد عليه مما اصابه من
الخشب * .

على الانسان ان يفكر فى الامر قبل الدخول فيه وان
لا يختار امرا ليس له فيه نفع * .

4. Translate into English any three of the following:—

12

(a) قال لقمان ان الدنيا بحر عريض قد هلك فيه الاولون
والآخرون فاجعل سفينتك تقوى الله و زادك العمل الصالح
فان نجوت فبرحمة الله و ان هلكت فبذنوبك *

(b) قال رجل لابي الورداء ما لنا نكرة الموت فقال لانكم
اخريتم اخرتكم و عمرتم دنياكم فكمهتكم ان تنقلوا من العمران
الى الخراب * .

(c) ثلاثة لا يستخف بهم - السلطان و العالم و الصديق - فمن
استخف بالسلطان ذهب دنياه - و من استخف بالصديق
ذهب مودته - و من استخف بالعالم ذهب دينه *

(d) جد بما تجد - بكاء المرء من خشية الله قرّة العين - بلاء
الانسان من اللسان - زينة الباطن خير من زينة الظاهر - لا دين
لمن لا مروءة له - حسن الادب يسترقبج للنسب *

(e) اذا ذهب الحياء حلّ البلاء - . بعض الكلام اقطع من
الكساح - نصرة الحق شرف - من حسنت خصاله طاب
وصاله - من حفر حفيرا لآخيه كان حنفا فيه - كلام المرء بيان
فضله و ترجحان عقله *

5. Answer any four of the following:—

20

(a) Give the rules of منادى with examples.

(b) Enumerate **الافعال الناقصة** and state their use.

(c) Define **تمييز** and give examples.

(d) Give the singular or the plural, as the case may be, of—

ذراع - وتد - عين - باطن - سفينة - بحر - صديق - لسان - خصال - صورة

(e) How do you form **الامر الخاص المعروف** in Arabic?

(f) Give the **تعليل** of **يَقْبَلُ** - **يَقْبَلُ** - **يَقْبَلُ**.

6. Correct:—

يا ابو زيد - ضرب زيد - الشمس طلع - عندى ثلاثة رجلا -

البد ليمين

7. Translate into Arabic *any ten* of the following:—

25

(a) Children, you should obey your parents.

(b) Who they were, whence they came, where they were going, we could not discover.

(c) A man who rises early is healthier than one who sleeps late.

(d) Come again to-morrow: I have something to tell you.

(e) I do not know when the school reopens.

(f) They study day and night.

(g) The boys found an empty bird's nest in the wood.

(h) I do not know where I can find him.

(i) Do quickly what you have to do.

(j) You must call again next week.

(k) You have done your best: no one can do more.

(l) The tail of this horse is long and its mane is short.

(m) England expects every man to do his duty.

(n) These pens are inferior to those.

(o) I have bought myself a horse and a carriage.

PERSIAN.

Paper-setters—{ AGA MAHOMAD KAZIM SHIRAZI.
MAULAVI MUHAMMAD HIDAYAT HOSSAIN.

Head Examiner—AGA MAHOMAD KAZIM SHIRAZI.

COMPULSORY PAPER.

Examiners—{ MAULAVI A. M. WAZIH.
„ MAHOMED MUSA.
„ MAHOMED HASSAN.
„ ABDUL RAHIM.
„ ABDUL BARI
„ FIDA ALI KHAN.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English *either* (A) or (B) :—

12

A.

مردم آزادی را حکایت کنند که سنگی بر سر صالحی زد -
درویش را مجال انتقام نبود - سنگ را با خود همیداشت
تا وقتی که ملک را بران لشکری خشم آمد - در چاه زندانش
کرد - درویش بیامد و سنگ بر سرش کوفت - گفتا تو کیستی
و این سنگ بر من چرا زدی - گفت من فلام - و این سنگ
همان است که دران تاریخ بر سر من زدی - گفت چندین روزگار
کجا بودی - گفت از جاهت اندیشه می کردم - اکنون که
در چاهت دیدم فرصت را غنیمت شمردم

B.

از عبد الله بن جعفر رض الله تعالی عنهما آرند روزی
عزیمت سفر کرده بود - بنخلستان قومی فرود آمد که غلامی

سیاه نگاهبان آن بود - دید که سه قرص نان بجهت قوت وی
 آوردند - سگی آنجا حاضر شد - آن غلام یک قرص را پیش وی
 انداخت - بخورد - پس دیگری را بینداخت آن را هم بخورد
 پس دیگری را بینداخت آن را هم بخورد - عبد الله رض الله عنه
 از وی پرسید که هر روز قوت تو چیست - گفت آنچه دیدی -
 گفت چرا بر نفس خود ایثار نکردی - گفت وی درین زمین
 غریب است *

4 - آوردند - کرده بود - : State the صیغه of the following verbs :
 می کردم and کوفت - زد - دیدی - پوهید - انداخت

3 (b) What does نگاهبان in mean ? Give other examples of
 similar nature.

3 (c) Complete the story contained in the passage B.

12 (d) Point out the subjects of آرند and آورد in extract B.

12 2. Translate any one of the following passages into English :—

(a) چار چیز آمد نشان ابلهی

با تو گویم تا بیابی آگهی

عیب خود را بد نه بیند در جهان

باشد اندر جستن عیب کسان

تخم بغل اندر دل خود کاشتن

آنکه امید سخاوت داشتن

هر که خلق از خلق او خوشنود نیست

هیچ پدرش بر در معبود نیست

هر که او را پیشه بد خوئی بود

کار او پیوسته بد روئی بود

خوی بد در تن بلای جان بود

مردم بد خو نه از انسان بود

(b) بر سر بالین بیماران گذر
زانکه هست این سنت خیرالبشر
تا توانی تشنه را سیراب کن
در مجالس خدمت اصحاب کن
خاطر ایتام را در باد نیز
تا ترا پیوسته حق دارد عزیز
چون شود گریان یتیمی ناگهان
عرش حق در جنبش آید آن زمان
چون یتیمی را کسی گریان کند
مالک اندر دوزخش بریان کند
آنکه خندان یتیم خسته را
باز پابد جنت در بسته را

3. (a) Give the Arabic plurals of *any five* of the following :— 5

- طبیب - حکیم - رعیت - دوات - نفس - صالح - مسکین - نعمت
صاحب and شخص

(b) How do the Persians express *thee, thine, who, which, whosoever, and whatsoever* ? 6

(c) What is the meaning of the *alif* in the following distich 2

خوشا شیراز و وضع بیمتالش خداوند نگهدار از زوالش

(d) Write imperatives of *any six* of the following infinitives :— 5

- آوردن - دیدن - زدن - گفتن - سوختن - نگاهتن - کردن
آمدن and شفاعتن

(e) Form words with the following suffixes and give their meanings :— 5
سنان and مند - لاخ - زار - سار

(f) How are the comparative and superlative degrees of adjectives formed in Persian ? 6

4. Rewrite after correcting errors :— 10

مردم هلی ان شهر خیلے دانا است (a)

- (b) فردا بتخدمت سرکار حاضر شده بودم.
 (c) دو عالم برادران بشهرافت
 (d) زید و یکر گفت که هر دو رفتم
 (e) ده مردان فاضل آمد

5. Translate into Persian :—

25

One night a Qazi read in a book that whoever had a small head and a long beard is a fool. The Qazi, having a small head and a long beard, said to himself, 'I cannot increase the size of my head, but I will shorten my beard.' He sought for scissors, but could not find them. Having no other course, he took half his beard in his hand, and carried the other half towards the lamp: when the hair took fire, the flames reached his hand, upon which, letting go his hand, the beard was entirely consumed. The Qazi was overwhelmed with shame, as it verified what was written in the book.

PERSIAN.

ADDITIONAL PAPER.

Examiners—	{	MAULAVI ABDUL AZIZ.
		FAKHRUDDIN AHMED.
		A. MANNAN, M A.
		ABDULLA ABU SYED.
		HIDAYAT HOSSAIN.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English :—

10

امیر المومنین عمر رضی اللہ عنہ در وقت خلافت خود
 در مدینة منورة دیواری گل میکرد یہودی پیش وی تظلم کرد کہ
 حاکم بصرہ بہزار درم از من متاعی خریدہ است و در ادای
 ثمن آن تعلل میکند فرمود کہ کاغذ پارہ داری گفت نی
 سفالی برداشت و بر آنجا نوشت کہ شکایت کنندگان از تو
 بی حسابند و شکر گذاران نایاب از موجبات شکایت بپرهیز یا

از مسند حکومت برخیز و در آخر نوشت که کتبه عمر بن الخطاب نه بر آن مهری زد و نه بر آن طغرائی رقم کرد اما چندان صولت عدالت و هیبت سیاست از وی در خطرها نشسته بود که چون آن سفال را بحاکم بصره داد و وی سوار بود از اسب فرود آمد و زمین ببوسید و وجه یهودی را تمام ادا کرد و وی سوار ایستاده بود *

2. (a) Explain the grammatical signification of hamza (ء) in the following: — طغرائی - گاه پاره یهودی - مدینه مغربه *

(b) Has the ی in دارى، هیورى، and یهودى the same or different significations? Give reason for your answer.

(c) Give the plurals of any five of the following: — ثمن - درم - حاکم - کاغذ - مصلحت - وجه - آخر - مدینه *

3. Translate into English: —

30

A.

نادر شاه اصلی نداشت چنانکه نوشته اند پسر پوستین دوز بود ولی آثار بزرگی از صورتش ظاهر بود در ابتدای عمر مدتی در خدمت ملک محمود سیستانی بسر میبرد تا موقعی که شاه طهماسب به خراسان میرفت به اردوی شاه طهماسب آمد و مورد توجه سلطان گشت و لقب طهماسب قلیخان یافت شاه طهماسب بتسخیر خراسان او را مامور نمود که آخر الامر آن مملکت را فتح کرد *

B.

حسن و حسین دو برادر بودند پدرشان در باغ بهر کدام یک درخت میب سپرد و گفت شما تربیت کنید - حسن هر روز درخت خود را آبیاری میکرد و حسین بخیالش که درخت

خود بخود میوه میدهد ادا بفکر درخت خود نبود - روزی پدر
 بتماشای باغ رفت - محسن رفته و چند دانه سیب از درخت
 خود چیده پیش پدر آورد و گذاشت پدر سر و صورتش را بوسه
 داد و آفرین گفت - حسین این را دیده برخاست و رفت که
 او هم از درخت خود سیب بیارد و لطف پدر ببیند رفت و دید
 درختش خشک شده برگ هم ندارد مأیوس و نا امید
 برگشت و سر خجالت بزیر افگند *

4. (a) Write out with examples the various ways in which possession is expressed in Persian. 3

(b) Give the meanings and the 2nd person imperatives of *any six* of the following infinitives:— 4

کستن - رستن - درودن - بردن - وزیدن - کوفتن - فریفتن -
 غلطیدن - هشتن *

5. Give the meanings and explain the formation of *any six* of the following:— 12

تاویل شرعی هر آئینه - مستجاب الدعوات - رومی درهم
 کشید - پیکار جستن کلوخ انداز - ناخوش آواز - شهریار - بازرگانان -
 بعون الله تعالی *

6. Translate into Persian:—

Tell me why you have come so late. He is a wicked boy, he always absents himself from his school. The rain has stopped, let us go for a walk. Yesterday I saw him walking in the street, therefore he can't be sick. Please give me a loan of rupees twelve, I will return it to you after sixteen days. I reached Calcutta before daybreak, and saw a large number of men bathing in the Ganges. He is very ill and cannot sit up. Let him lie down. 25

FRENCH.

Examiners and { REV. FATHER E. FRANCOITTE, S.J.
 Paper-setters— { T. S. STERLING, ESQ., M.A.

COMPULSORY PAPER.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks.

1. Translate into English *four* of the following passages :—

24

(a) Lorsqu'il prononçait les mots de vengeance et de meurtre, miss Lydia le regardait attentivement, mais sans découvrir sur ses traits la moindre trace d'émotion. Comme elle avait décidé qu'il avait la force d'âme nécessaire pour se rendre impénétrable à tous les yeux, les siens exceptés, bien entendu, elle continua de croire fermement que les mânes du colonel della Rebbia n'attendraient pas longtemps la satisfaction qu'elles réclamaient.

(b) Soit que l'arrivée de sa sœur eût rappelé à Orso avec plus de force le souvenir du toit paternel, soit qu'il souffrit un peu devant ses amis civilisés du costume et des manières sauvages de Colomba, il annonça dès le lendemain le projet de quitter Ajaccio et de retourner à Pietranera. Mais cependant il fit promettre au colonel de venir prendre un gîte dans son humble manoir, lorsqu'il se rendrait à Bastia, et en revanche il s'engagea à lui faire tirer daims, faisans, sangliers et le reste.

(c) Tout d'un coup on entendit le galop d'un cheval. •
 'Ah! cette fois, c'est mon frère', dit Colomba en se levant.

Mais à la vue de Chilina montée à califourchon sur le cheval d'Orso:
 'Mon frère est mort!' s'écria-t-elle d'une voix déchirante.

Le colonel laissa tomber son verre, miss Nevil poussa un cri, tous coururent à la porte de la maison.

(d) Retirez-vous, seigneur, et fuyez un courroux
 Que ma persévérance allume contre vous.
 Néron est irrité. Je me suis échappé
 Tandis qu'à l'arrêter sa mère est occupée.
 Adieu; réservez-vous, sans blesser mon amour,
 Au plaisir de me voir justifier un jour.
 Votre image sans cesse est présente à mon âme,
 Rien ne l'en peut bannir.

(e) Mais, Narcisse, dis-moi, que veux-tu que je fasse ?
 Je n'ai que trop de pente à punir son audace ;
 Et, si je m'en croyais, ce triomphe indiscret
 Serait bientôt suivi d'un éternel regret.
 Mais de tout l'univers quel sera le langage ?
 Sur les pas des tyrans veux-tu que je m'engage,
 Et que Rome, effaçant tant de titres d'honneur,
 Me laisse pour tous noms celui d'empoisonneur ?

(f) J'ai mes raisons, Narcisse ; et tu peux concevoir
 Que je lui vendrai cher le plaisir de la voir.
 Cependant vante-lui ton heureux stratagème :
 Dis-lui qu'en sa faveur on me trompe moi-même,
 Qu'il la voit sans mon ordre. On ouvre ; la voici.
 Va retrouver ton maître, et l'amener ici.

2. Translate into English *three* of the following, adding notes on 12 points of grammar:—

- (a) Excité d'un désir.
- (b) Que tardez-vous, seigneur, à la répudier ?
- (c) J'ai vu sur ma ruine élever l'injustice.
- (d) Il se mordit les lèvres.
- (e) Mais trouvez-vous que ce soit bien héroïque ?
- (f) Qu'est-ce qu'elle me veut ?

Either,

3. Give briefly in your own words the story of *Colomba*. 14

Or,

Write short sketches of *two* of the following characters: *Burrhus, Junie, Albine, Narcisse*.

4. Translate into English *six* of the following:— 24

(a) Je me fais un devoir de ne jamais manquer de parole, surtout à mes amis.

(b) Vous pouvez être persuadé que je suis prêt à faire tout ce qui dépendra de moi pour vous obliger

(c) Si j'avais su que vous veniez, j'aurais fait préparer quelque chose de plus.

(d) Il n'est point de pays comme celui-ci pour trouver toute l'année une belle verdure.

(e) Je crois que nous ferons bien de retourner à la maison; nous attendons de la compagnie pour le thé, et nous arriverons peut-être un peu tard.

(f) Ce qui m'enchanté surtout dans ces jardins, c'est l'heureux mélange des effets de l'art et de la simplicité de la nature

(g) J'espère que vous viendrez au premier jour me donner l'occasion de prendre ma revanche.

(h) Ce sera avec le plus grand plaisir, mais à la condition que vous ne ferez pas plus de cérémonies avec moi que je n'en ai fait avec vous.

5. Translate into French *eight* of the following sentences:— 26

(a) My heart overflows with joy.

(b) All my wishes are gratified.

(c) I took a liking to him the first time I saw him.

(d) Such a friend is a treasure.

(e) Is there any news to-day ?

(f) I have spent a very pleasant day.

(g) It is a quarter to twelve.

(h) He got up at four o'clock in the morning.

(i) I am very hungry.

(j) My sleep was much disturbed.

FRENCH.

ADDITIONAL PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate *two* of the following passages :—(a) *Junie.*

Ah ! Seigneur ! *Vous* parlez contre votre pensée,
 Vous-même, vous m'avez avoué mille fois
 Que Rome le louait d'une commune voix ;
 Toujours à sa vertu vous rendiez *quelque* hommage.
 Sans doute la douleur vous dicté ce langage.

(b) *Britannicus.*

Pour moi, quelque péril *qu'*me puisse accabler,
 La seule inimitié peut me faire trembler.

• *Néron.*

Souhaitez-la ; c'est tout ce *que* je vous puis dire.

Britannicus.

Le bonheur de lui plaire est le seul où j'*aspire*.

Néron.

Elle vous l'a promis, vous lui plairez toujours.

(c) *Agrippine.*

Le voici. *Vous* *verrez* si c'est moi qui l'inspire.

• *Néron, voyant Agrippine.*

Dieux !

• *Agrippine.*

Arrêtez, Néron : j'ai deux mots à vous dire ;
 Britannicus est mort : je reconnais les coups ;
 Je connais l'assassin.

Néron.

Et qui, madame ?

Agrippine.

Vous.

2. Translate *three* of the following passages :—

(a) C'est une phrase du marquis de Mascarille, monsieur della Rebbia, je crois, mais . . . voulez-vous que je *vous* donne une preuve de ma pénétration ? Je suis un peu sorcière, et je sais ce que pensent les gens que j'ai vus deux fois.—Mon Dieu ! vous m'effrayez !

(b) 'Lieutenant della Rebbia, vous n'êtes pas à votre place de bataille, trois jours d'arrêts—Vos tirailleurs sont à cinq mètres *trop* loin de la réserve, cinq jours d'arrêts—Vous êtes en bonnet de police à midi cinq minutes, huit jours d'arrêts.' Une seule fois, aux Quatre-Bras, il lui avait dit : 'Très-bien, Orso ; mais de la *prudence*.'

(c) De la part d'un misérable comme paraît être ce Bianchi, tout s'explique, dit Orso, trompé par l'air de modération de *sa* sœur.—La lettre contrefaite, continua Columba, dont les yeux commençaient à briller d'un éclat plus vif, est datée du 11 juillet. Tomaso était alors chez son frère, au moulin.

(d) Dans un moment *pressant*, dit Orso, quelques pièces d'or font grand bien. Maintenant *que* nous sommes de vieilles connaissances, vous ne me refuserez pas cette petite cartouche qui peut vous servir à vous en procurer d'autres.—Pas d'argent entre nous, lieutenant, dit Brandolaccio d'un ton résolu.

3. (a) Parse fully *six* of the words in italics (Questions 1 and 2). 3
- (b) In 1 (b) give another turn to the second line, so as to make the meaning clearer. 1
- (c) In what part of Extract 1 (a) does Junie soften the reproof she makes use of in the first line ? 1
- (d) Give the principal parts (*temps primitifs*) of—*pouvoir, faire, voir, dire*. 4
- (e) Translate :—*en somme, explique qui pourra, au grand soleil, se faire une mauvaise affaire, petit-cousin, avoir une bonne tournure, éclater de rire, par un clair de lune, dormir sur les deux oreilles, à l'anglaise*. 5
- (f) What do you know about—*Les Cent-Jours, Quatre-Bras, Dante* ? 3
4. (a) Write the plural form of the following :—*souvenir, lis, jeu, hôpital, chacal, émail*. 3
- (b) What do you know about the formation of the feminine of substantives ? Give the feminine of—*marquis abbé, dieu, accusateur, veuf, sot, bigot, chartreux*. 2
- (c) Write the masculine of the following adjectives :—*active, jalouse, douce, rousse, vieille, dernière, menteuse, meilleure*. 2
- (d) Give the comparative and superlative of—*bon, mauvais, petit, bien, mal, peu*. 3
- (e) What tenses are called *temps primitifs* in French ? Illustrate the derivation of other tenses from *any one* of them. 4
- (f) What do you know about the agreement of the past participle connected with the auxiliaries *avoir* and *être* ? 4

5. Translate into idiomatic English :—

30

Un paysan, nommé Thomas, avait affaire en ville. Il persuada à son ami Lubin de venir avec lui. En chemin, Thomas trouva une bourse remplie de pièces d'or.—'Quelle bonne aubaine pour nous !' s'écria Lubin.—'Pour nous ?' reprit Thomas, tu te trompes ; ce n'est pas pour nous, c'est pour toi, que tu dois dire. Chacun pour soi, Dieu pour tous !' En prononçant ces mots, il empocha la bourse. Lubin continua son chemin dans le plus profond silence. Au bout d'un quart d'heure, les deux amis entrèrent dans une épaisse forêt qu'ils devaient traverser pour arriver à la ville. À peine y eurent-ils fait cent pas, que deux voleurs, cachés derrière un grand arbre, se jetèrent sur eux en criant : 'La bourse ou la vie !' Thomas s'écria : 'Mon Dieu, c'en est fait de nous !'—'Nous ?' reprit Lubin, tu te trompes : nous, n'est pas le mot ; toi, c'est autre chose !'

6. Translate into idiomatic French :—

25

Six o'clock had just struck when I returned.—What are we going to do ?—I am going to take a walk. —I ought to have gone to London to-day, but I am not very well.—I have had to buy these books which I do not want.—I have just arrived.—My brother has just finished his lessons ; wait for him.—I ought to write some letters.—I did not find him ; he had just gone out.—My sisters are to go to the concert, and I am to accompany them.—Our friends have been obliged to sell their garden.—I should like to have seen him.

GREEK.

Examiners and (DR. H. STEPHEN, M.A., D.D.

Paper-setters— (REV. DR. G. HOWELLS, M.A., PH.D.

COMPULSORY PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate the following passages :—

25

(a) Πορευόμενοι δὲ ἀφίκοντο εἰς κώμας ὅθεν ἀπέδειξαν οἱ ἡγεμόνες λαμβάνειν τὰ ἐπιτηδεια· ἐνὴν δὲ σίτος πολὺς καὶ οἶνος φοινίκων καὶ ὄξος ἐψητὸν ἀπὸ τῶν αὐτῶν· αὐταὶ δὲ αἱ βύλανοι τῶν φοινίκων οἷας μὲν ἐν τοῖς Ἑλλήσιν ἔστιν ἰδεῖν τοῖς οἰκέταις ἀπέκειντο, αἱ δὲ τοῖς δεσπόταις ἀποκείμεναι ἦσαν ἀπόλεκτοι, θαυμάσιαι τοῦ κάλλους καὶ μεγέθους, ἣ δὲ ὄψις ἡλέκτρον οὐδὲν διέφερε. τὰς δὲ τινὰς ξηραίνοντες τραγήματα ἀπετίθεσαν. καὶ ἦν καὶ παρὰ πότον ἡδὺ μὲν, κεφαλαλγὲς δέ. ἐνταῦθα καὶ τὸν ἐγκέφαλον τοῦ φοίνικος πρῶτον ἔφαγον οἱ στρατιῶται, καὶ οἱ πολλοὶ ἐθαύμασαν τό τε εἶδος καὶ τὴν ιδιότητα τῆς ἡδονῆς. ἦν δὲ σφόδρα καὶ τοῦτο κεφαλαλλές. ὁ δὲ φοῖνιξ ὅθεν ἐξαιρεθεῖη ὁ ἐγκέφαλος ὅλος αὐαίνεται.

(b) Οὐκ ἔστι θνητῶν ὅστις ἔστ' ἐλεύθερος·

ἢ χρημάτων γὰρ δοῦλός ἐστιν ἢ τύχης,
ἢ πλῆθος αὐτὸν πόλεος ἢ νόμων γραφαὶ
εἴργουσι χρῆσθαι μὴ κατὰ γνώμην τρόποις.
ἐπεὶ δὲ ταρβεῖς τῷ τ' ὄχλῳ πλέον νέτεις,
ἐγὼ σε θήσω τοῦδ' ἐλευθερον φόβου.
ξύνισθι μὲν γάρ, ἦν τι βουλευσῶ κακὸν
τῷ τόνδ' ἀποκτείναντι, συνδράσσης δὲ μῆ.
ἦν δ' ἐξ Ἀχαιῶν θόρυβος ἢ ᾗ πικουρία
πάσχοντος ἀνδρὸς ὀρηκὸς οἷα πείσῃ· αἱ
φανῇ τις, εἴργε μὴ δοκῶν ἐμὴν χάριν.
τὰ δ' ἄλλα θάρσει· πάντ' ἐγὼ θήσω καλῶς.

(c) *ΚΑΙ* ἐγένετο παραπονεῖσθαι αὐτὸν ἐν τοῖς σάββασι διὰ τῶν σπορίμων· καὶ ἤρξαντο οἱ μαθηταὶ αὐτοῦ ὁδὸν ποιεῖν τίλλοντες τοὺς στάχυνας. Καὶ οἱ Φαρισαῖοι ἔλεγον αὐτῷ· Ἴδε, τί ποιοῦσιν ἐν τοῖς σάββασι; οὐκ ἐξεῖτι; Καὶ αὐτὸς ἔλεγεν αὐτοῖς· Οὐδέποτε ἀνέγνωτε, τί ἐποίητε Δαβὶδ, ὅτε χρεῖαν ἔσχε, καὶ ἐπείνασεν αὐτὸς καὶ οἱ μετ' αὐτοῦ; Πῶς εἰσῆλθεν εἰς τὸν οἶκον τοῦ Θεοῦ ἐπὶ Ἀβιάθαρ τοῦ ἀρχιερέως, καὶ τοὺς ἄρτους τῆς προθέσεως ἔφαγεν—οὗς οὐκ ἐξεῖτι φαγεῖν εἰ μὴ τοῖς ἱερεῦσι—καὶ ἔδωκε καὶ τοῖς σὺν αὐτῷ οὔσι; Καὶ ἔλεγεν αὐτοῖς· Τὸ σάββατον διὰ τὸν ἄνθρωπον ἐγένετο, οὐχ ὁ ἄνθρωπος διὰ τὸ σάββατον. Ὡστε κύριός ἐστιν ὁ υἱὸς τοῦ ἀνθρώπου καὶ τοῦ σαββάτου.

2. Parse and give the principal parts of the verbs contained in the first passage. 11

3. Give the context of and write brief annotations on the second passage. 7

4. *Either*, Describe briefly the plot of *Hecuba*. 7

Or, Indicate the more important characteristics of the Gospel of St. Mark.

5. Translate the following passages into English:— 35.

(a) Ἐπεὶ ἔδοξεν ἐπὶ Πέτρος στρατεῦν, οἱ Ἕλληνες ἐς τὸν Ἰσθμὸν συλλεγόντες Ἀλέξανδρον ἡγεμόνα ἀνηγόρευον· καὶ πολλοὶ μὲν ἄνδρες πολιτικοὶ καὶ φιλόσοφοι ἦσαν ἐκεῖτε ἀσπασόμενοι αὐτόν. Διογένης δὲ ὁ Σινωπεὺς, καί περ ἐν Κερύνθῳ ἐν τῷ τότε ἱατρίβων, οὐκ ἦλθεν· ἀκούσαντι δὲ τοῦτο τῷ Ἀλέξανδρῳ ἔδοξεν αὐτῷ πορεύεσθαι ὥς ἐκείνον· ἐλθὼν δὲ μετὰ τῶν ἐταίρων κατέλαβε τὸν Διογένην ἐν τῷ ἡλίῳ κατακείμενον. θανατίσας οὖν τοσοῦτο ὡς ἄνδρας, ἀνεκάλυψε, καὶ εἰς τὸν Ἀλέξανδρον διέβλεψε· καὶ ὁ μὲν βασιλεὺς ἡσπίστατο αὐτὸν καὶ ἠρώτησεν, εἰ τοῦ τυγχάνει δεόμενος. ὁ δὲ “μικρόν,” ἔφη, “ἀπὸ τοῦ ἡλίου μετίσθη.” ταῦτα δὲ ἀκούσας ὁ Ἀλέξανδρος οὕτως ἐθαύμασε τὴν μεγάλαν ψυχὴν τοῦ ἀνδρός, ὥστε, τῶν περὶ αὐτὸν γελόντων καὶ σκωτόντων, “ἐγώ γε,” εἶπεν, “εἰ μὴ Ἀλέξανδρος ἦν, Διογένης ἂν ἦν.”

(b) Καὶ ἔρχονται εἰς Ἱεριχὼ καὶ ἐκπορευομένον αὐτοῦ ἀπὸ Ἱεριχὼ κατὰ τῶν μαθητῶν αὐτοῦ, καὶ ὄχλον ἱκανοῦ, υἱὸς Τιμαίου, Βαρτίμαιος ὁ τυφλός, ἐκίθητο παρὰ τὴν ὁδὸν προσαιτῶν. Καὶ ἀκούσας ὅτι Ἰησοῦς ὁ Ναζωραῖός ἐστιν, ἤρξατο κρᾶζειν καὶ λέγειν· Ὁ υἱὸς Δαβὶδ, Ἰησοῦ, ἐλέητόν με. Καὶ ἐπετίμων αὐτῷ πολλοί, ἵνα σιωπήσῃ· ὁ δὲ πολλῶ μᾶλλον ἔκραξεν· Ὡς Δαβὶδ, ἐλέησόν με. Καὶ στὰς ὁ Ἰησοῦς εἶπεν αὐτὸν φωνηθῆναι· καὶ φωνοῦσι τὸν τυφλόν, λέγοντες αὐτῷ· Θάρσει, ἔγεραι· φωνεῖ σε. Ὁ δὲ ἀποβαλὼν τὸ ἱμάτιον αὐτοῦ, ἀναστὰς ἦλθε πρὸς τὸν Ἰησοῦν. Καὶ ἀνοκλιθεὶς λέγει αὐτῷ ὁ Ἰησοῦς· Τί θέλεις· οὐκ ἔγωγ σοι; Ὁ δὲ τυφλὸς εἶπεν αὐτῷ· Ῥαββουνί, ἵνα ἀναβλέψω. Ὁ δὲ Ἰησοῦς εἶπεν αὐτῷ· Ὑπαγε, ἡ πίστις σου σέσωκέ σε· Καὶ εὐθέως ἀνέβλεψε, καὶ ἠκολούθει αὐτῷ ἐν τῇ ὁδῷ.

6. Translate any three of the following sentences into Greek:—

25

(a) The generals ordered us not to enter this city.

(b) If you do this, you will be thought to be an enemy of your country.

(c) After this will they not be allowed to take whatever seems good to them?

(d) Because of this they say they do not know why we have come.

* GREEK.

ADDITIONAL PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate :—

20

(a) Αγ.

Οὐχ ὅσοι τάχος

νήσων ἐρήμων αὐτὸν ἐκβαλεῖτέ που,
ἐπεὶ περ οὕτω καὶ λίαν θρασυστομεῖ;
Ἐκάβη, σὺ δ', ὦ τάλαινα, διπτύχους νεκρούς
στείχουσα θύπτε· δεσποτῶν δ' ὑμᾶς χρεῶν
σκηναῖς πελάζειν, Τρῳάδες· καὶ γὰρ πνοὰς
πρὸς οἶκον ἤδη τάσδε πομπίμους ὁρῶ,
εὖ δ' ἐς πάτραν πλεύσαιμεν, εὖ δὲ τὰν δόμοις
ἔχοντ' ἴδοιμεν τῶνδ' ἀφειμένοι πόνων.

Χορ. Ἴτε πρὸς λιμένας σκηνάς τε, φίλοι,
τῶν δεσποσύνων πειρασόμεναι
μόχθων· στερρὰ γὰρ ἀνάγκη.

Parse ἀφειμένοι and give its principal parts. Derive the compound words. Account for the optatives.

(b) Οὐχ ἦδ' ἀνασσα τῶν πολυχρύσων Φρυγῶν;
καὶ νῦν πόλις μὲν πᾶσ' ἀνέστηκεν δορί·
αὕτη δὲ δούλη, γρῦς, ἅπαις ἐπὶ χθονὶ
κεῖται, κόνει φύρουσα δύστηνον κῆρα.
φεῦ, φεῦ· γέρων μὲν εἰμ', ὅμως δέ μοι θανεῖν
εἴη πρὶν αἰσχρὰ περιπεσεῖν τύχη τινί.

Parse and give the parts of θανεῖν. Scan the last two lines.

(c)

* Ἡ Παλλῆδος ἐν πόλει
τᾶς καλλιδήφρου τ' Ἀθαναιᾶς
ἐν κροκέῳ πέπλῳ
ζεύξομαι ἄρματα πόλους,
ἐν διαδαλέασι ποικίλλουσ'
ἀνθοκρόκοισι πῆναις
ἢ Τιτάνων γενεᾶν
τὰν Ζεὺς ἀμφιπύρῳ
κοιμίζει φλογμῷ Κρηνίδας.

In which of the Greek dialects is this written? Explain the structure of a choral ode and the function of the chorus. Mention any English poem in which the same structure is observed.

(d) Καὶ τοῖς μὲν τῶν πολεμίων κτήμασιν οὐκ ἐπεβούλευε· χαλεπὸν γὰρ ᾤετο εἶναι τὰ τῶν φυλαττομένων λαμβάνειν. τὰ δὲ τῶν φίλων μόνος ᾤετο εἰδέναι ῥάστον ὃν ἀφύλακτα λαμβάνειν. καὶ ὅσους μὲν αἰσθάνοιτο ἐπιόρκους καὶ ἀδίκους, ὥς εὖ ὠπλισμένους ἐφύβειτο, τοῖς δ' ὁσίοις καὶ ἀλήθειαν ἀσκοῦσιν ὡς ἀνάνδροις ἐπειράτο χρῆσθαι.

Parse ᾤετο, ῥάστον and εἰδέναι. Give some account of the person here referred to.

2. Turn into Greek :—

30

In the first book of the Anabasis Xenophon tells how a Greek force was gathered together round Cyrus the younger, when he was going to make war against his brother the king; and what things happened in the upward march; and how the battle took place; and how Cyrus died; and how the Greeks, returning to their camp, went to rest thinking that they had won the battle, and that Cyrus was still alive. But next day, the generals, coming together, wondered that Cyrus neither appeared himself, nor sent anyone else to tell them what to do. And as the sun was rising certain officers came and told them that Cyrus was dead.

3. Translate (without preparation) :—

30

Either, (a) The self-sacrifice of Alcestis.

Ἀπόλλων Ἀδμήτῳ, τῷ βασιλεῖ τῶν Φερῶν, ἐθήτευσε καὶ ἡτήσατο παρὰ Μοιρῶν, ἵνα, ὅταν Ἀδμητος μέλλῃ τελευτᾶν, ἀπολυθῇ τοῦ θανάτου, ἂν ἐκουσίως τις ὑπὲρ αὐτοῦ θνήσκειν ἔλθῃ. ὥς δὲ ἦλθεν ἡ τοῦ θνήσκειν ἡμέρα, μήτε τοῦ πατρός μήτε τῆς μητρὸς ὑπὲρ αὐτοῦ θνήσκειν θελόντων, Ἀλκηστis ἡ αὐτοῦ ἄλοχος ὑπεραπέθανε. καὶ αὐτὴν πάλιν ἀνέπεμψεν ἡ Κόρη· ὥς δὲ ἔνιοι λέγουσιν, Ἡρακλῆς μαχεσάμενος τῷ Θανάτῳ.

Or, (b) Poseidon mourns for Hecuba.

Τὴν δ' ἀθλίαν τήνδ' εἴ τις εἰσορᾷν θέλει,
παρέσστιν Ἑκάβῃ κειμένην πυλῶν πάρος
δάκρυα χέουσα πολλὰ καὶ πολλῶν ὕπερ.
ἥ παῖς μὲν ἀμφὶ μνήμῃ Ἀχιλλεῖου τάφου,
λάθρα τέθνηκε τλημόνων Πολυξένη·
φροῦδος δὲ Πρίαμος καὶ τέκν'· ἦν δὲ παρθένον
μεθήκ' Ἀπόλλων δρομάδα Κασάνδραν ἄναξ,
τὸ τοῦ θεοῦ τε παραλιπὼν τό τ' εὖσεβὲς
γαμῇ βιαίως σκόκιον Ἀγαμέμνων λέχος.
ἀλλ', ὦ ποτ' εὐτυχῶσα, χαῖρέ μοι, πόλις
ἔστον τε πύργωμ'· εἰ σε μὴ διώλεσε
Παλλὰς Διὸς παῖς, ἦσθ' ἂν ἐν βάρβοις ἔτι.

4. (a) Decline in the singular—τάχος, δορί, κάρα, and γραῦς.

20

(b) Conjugate the future indicative active of βάλλω, and the present and imperfect active and middle of ἵμι.

(c) Give short sentences in Greek to show how 'place where,' 'place whence,' and 'place whither' are expressed in Greek.

LATIN.

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COMPULSORY.

Examiner—REV. A. B. JOHNSTON, M.A.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks

1. Translate into English :—

(a) Hoc facto proelio, Caesar neque iam sibi legatos audiendos 5
 neque condiciones accipiendas arbitrabatur ab eis qui per dolum atque
 insidias petita pace ultro bellum intulissent: expectare vero, dum
 hostium copiae auferentur^{*} equitatusque reverteretur, summæ dem-
 entiae esse iudicabat, et, cognita Gallorum infirmitate, quantum iam
 apud eos hostes uno proelio auctoritatis essent consecuti sentiebat :
 quibus ad consilia capienda nihil spatii dandum existimabat.

Write grammatical notes on—*expectare, dum . . . auferentur, auc-* 3
toritatis.

Was Caesar's action justified ? . 2

(b) Genus hoc est ex essedis pugnae. Primo per omnes partes 5
 peregitant et tela coniciunt atque ipso terrore equorum et strepitu
 rotarum ordines plerumque perturbant, et cum se inter equitum turmas
 insinuaverunt, ex essedis desiliunt et pedibus proeliantur. Aurigae
 interim paulatim ex proelio excedunt atque ita currus collocant, ut
 si illi a multitudine hostium premantur, expeditum ad suos receptum
 habeant. Ita mobilitatem equitum, stabilitatem peditum in proeliis
 praestant, ac tantum usu cotidiano et exercitatione efficiunt, uti in
 declivi ac praecipiti loco incitatos equos sustinere et brevi moderari
 ac flectere et per temonem percurrere et in iugo insistere et se inde in
 currus citissime recipere consuerint.

Give a brief account of Caesar's first expedition to Britain. 2

Write notes on—*si . . . premantur; consuerint.* 2

(c) Translate and write notes on :— 6

(i) Erat in Carnutibus summo loco natus Tasgetius.

(ii) Id tulit factum graviter Indutiomarus, suam gratiam inter
 suos minui, et qui iam ante inimico in nos animo fuisset, multo gra-
 vius hoc dolore exarsit.

(iii) Caesar cognito consilio eorum ad flumen Tamesim in fines
 Cassivellauni exercitum duxit.

2. Translate into English :—

(a) Aeneas maestus defixus lumina voltu 4
 ingreditur, linquens antrum, caecosque volutat
 eventus animo secum : cui fidus Achates
 it comes et paribus curis vestigia figit.

Write a grammatical note on *lumina*. 1

Explain briefly the circumstances to which these lines refer. 2

- (b) Centauri in foribus stabulant, Seyllaeque bifformes, 3
 et centumgeminus Briareus, ac belua Lœnae
 horrendum stridens, flamisque armata Chimaera,
 Gorgones, Harpyiaeque, et forma tricorporis umbrae.

Explain shortly the mythological allusions here. 4

- (c) Excudent alii spirantia mollius aera, 5
 credo equidem, vivos ducent de marmore voltus,
 orabunt causas melius, caelique meatus
 describent radio, et surgentia sidera dicent :
 tu regere imperio populos, Romane, memento—
 hae tibi erunt artes—pacisque imponere morem,
 parcere subiectis, et debellare superbos.

Mention three great Roman heroes whom Vergil eulogizes, and 3
 briefly explain their greatness.

Explain shortly the Vergilian idea of death and what comes after 3
 death.

3. Translate into English :— 25

Ecce, velut torrens, undis pluvialibus auctus
 aut nive, quae Zephyro victa repente fluit,
 per sata perque vias fertur, nec, ut ante solebat,
 riparum clausas margine finit aquas :
 sic Fabii latis vallem discursibus implent ;
 quosque vident sternunt ; nec metus alter inest.
 fraude perit virtus. in apertos undique campos
 prosiliunt hostes et latus omne tenent.
 quid faciant pauci contra tot milia fortes ?
 quidve, quod in misero tempore restet, habent ?
 una dies Fabios ad bellum miserat omnes :
 ad bellum missos perdidit una dies.

4. Translate into Latin :—

(a) It is still uncertain whether our men have won the day or 5
 not ; but I am certain that they have been false neither to their allies
 nor to their country.

(b) Do not be afraid ; I shall leave you to come to Rome as often 5
 as you please ; and when you come there be sure you stay in my
 house if you can.

(c) I have long been warning you whom it is your duty to guard 5
 against, whom to fear.

(d) If he were a man of more than average wisdom, yet he would 5
 not be able to resist your arguments, nor to arouse the prejudices of
 the people after you had spoken.

(e) The longer the war is protracted, the more oppressive will be 5
 the conditions of peace. Can you wonder then that the truest patri-
 ots are the most ardent advocates of peace ? ,

LATIN.

ADDITIONAL PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate:—

10

(a) Haec omnia Caesar eodem illo pertinere arbitrabatur, ut tridui mora interposita equites eorum, qui abessent, reverterentur: tamen sese non longius milibus passuum quattuor aquationis causa processurum eo die dixit

(b) Omnia excogitantur, quare nec sine periculo maneatur et languore militum et vigiliis periculum augeatur. Prima luce sic ex castris proficiscuntur, ut quibus esset persuasum non ab hoste, sed ab homine amicissimo Ambiorige consilium datum, longissimo agmine maximi-que impedimentis.

(c) Fit gemitus. Tum membra toro defleta reponunt purpureasque super vestes, velamina nota, coniciunt. Pars ingenti subiere feretro (triste ministerium) et subiectam more parentum aversi tenere faciem. Congesta cremantur turea dona, dapes, fuso crateres olivo.

(d) Infelix DiJo, verus mihi nuntius ergo venerat extinctam ferroque extrema secutam? Funeris heu tibi causa fui? Per sidera iuro, per superos et si qua fides tellure sub ima est, invitus, regina, tuo de litore cessi. sed me iussa deum, quae nunc has ire per umbras, per loca senta situ cogunt noctemque profundam, imperiis egere suis.

2. Translate, and write grammatical notes on the words in italics:—

5

(a) *Diebus decem*, quibus *materia coepta erat* comportari, omni opere effecto exercitus traducitur.

(b) Cuius loci haec erat natura, atque ita montibus angustis *mare* continebatur, uti ex locis superioribus in litus telum adigi *posset*.

(c) *Tertium iam hunc annum* regnantem inimici multis *palam* ex civitate *auctoribus* interfecerunt.

(d) Praeterea accidit, *quod* fieri necesse erat, ut *volgo* milites ab signis *discederent*.

3. Explain the allusions in:—

5

(a) Et tandem Euboicis Cumarum allabitur oris.

(b) Via prima salutis, quod minime reris, Graia panditur ab urbe.

(c) Neque te Phoebi cortina fefellit, dux Anchisiade, nec me deus aequore mersit.

(d) Gnosius haec Rhadamanthus habet durissima regna.

(e) Quin et avo comitem sese Mavortius addet Romulus, Assaraci quem sanguinis Ilia mater educet.

Explain the use of *ab* in (b).

4. Translate:—

30

Caesar, cum suam lenitatem cognitam omnibus sciret neque vereretur, ne quid crudelitate naturae videretur asperius fecisse, neque exitum consiliorum suorum animadverteret, si tali ratione diversis in locis plures consilia inissent, exemplo supplicii terrendos reliquos existimavit. Itaque omnibus, qui arma tulerant, manus praecidit-vitamque concessit, quo testatior esset poena improborum. Drappes, quem captum esse a Caninio docui, sive indignitate et dolore vinculorum sive timore gravioris supplicii paucis diebus cibo se abstinuit atque ita interiit. Eodem tempore Lucterius, quem profugisse ex proelio scripsi, cum in potestatem venisset Epasnacti Arverni (crebro enim mutandis locis multorum fidei se committebat, quod nusquam diutius sine periculo commoraturus videbatur, cum sibi conscius esset, quam inimicum deberet Caesarem habere), hunc Epasnactus Arvernus, amicissimus populo Romano, sine dubitatione ulla vinctum ad Caesarem deduxit.

5. (a) Parse:—*defuncte, desine, fac, inultus, redactas, urgeri, cohortandi, fixum, antiquitus.* 10

Either,

(b) Construct sentences illustrating the use of each of the following words:—*clam, quin, quominus, prae, quisque.*

Or,

Give, with examples, the chief uses of the infinitive and supines.

6. (a) Explain with examples:—gerundive attraction, partitive genitive, dative of purpose. 10

Either,

(b) Give the Latin for—three years ago, because of their skill, anxious to rule, to shout, he was informed, relying on their assistance, a transport vessel.

Or,

Give the derivation of eight only of the following words:—conscript, empire, equestrian, Mediterranean, confines, colony, rivulet, oriental, assist, solstice, protect, temerity.

(c) What classes of verbs complete their construction with the dative case?

7. Translate into Latin:—

30

Then the general, perceiving a safe opportunity, led his army secretly through the wood and attacked the enemy at dawn. They, taken unawares, offered a poor resistance, and were soon in flight, leaving many dead upon the field of battle. This defeat terrified the neighbouring peoples, who at once sent hostages and made submission. This degree of success was satisfactory, as the rainy season was approaching, when further operations would have been impossible. The general, however, threw away all his advantages: for, carelessly marching back to the coast, he lost his way and found himself in the midst of a marshy tract where paths were wanting and food was not to be obtained. Here he was blockaded by the enemy who combined again at the first hint of his difficulties: and here he had to wait, his men dying of misery, disease, and starvation around him, until reinforcements and supplies could reach him from the mainland.

HEBREW.

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.COMPULSORY PAPER.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Translate the following passages:—

25

(a) וַיֹּאמֶר יְהוָה אֶל-אַבְרָם לֵד-לָהּ מֵאֶרֶץ וּמִמּוֹלֶדֶתָּהּ
וּמִבֵּית אָבִיהָ אֶל-הָאָרֶץ אֲשֶׁר אֲרָאָהּ: וְאָעֲשֶׂה-לָּנִי גְדוֹל
וְאֶבְרָכָהּ וְאֶגְדֹּלָהּ שְׁמוֹ. וְהִי בֵרַכָּה: וְאַבְרָכָהּ מִבְּרָכֶיהָ
וּמִקְלָלָהּ אֲאִיר וְנִבְרָכוּ בָּהּ כָּל מִשְׁפַּחַת הָאָדָמָה: וַיֵּלֶךְ
אַבְרָם כַּאֲשֶׁר דִּבֶּר אֱלֹהֵי יְהוָה. וַיֵּלֶךְ אִתּוֹ לוֹט וְאַבְרָם בֶּן
חָמֵשׁ שָׁנִים וְשִׁבְעִים שָׁנָה בִּצְאָתוֹ מִחָרָן: וַיִּפְקֹחַ אַבְרָם
אֶת-שְׂרֵי אֲשֵׁתוֹ וְאֶת-לוֹט בְּנֵי-אָחִיו וְאֶת-כָּל-רֹכֹשׁ אֲשֶׁר
רָכְשׁוּ וְאֶת-הַנֶּפֶשׁ אֲשֶׁר-עָשׂוּ בְּחָרָן וַיֵּצְאוּ לָלֶכֶת אֶרֶצָה כְּנָעַן
וַיָּבֹאוּ אֶרֶצָה כְּנָעַן: וַיַּעֲבֹר אַבְרָם בָּאָרֶץ עַד מְקוֹם שְׁכֵם
עַד אֵלֶּיךָ מִירָה וַחֲכַנְעֲנִי אֲנִי בָּאָרֶץ: וַיֵּרָא יְהוָה אֶל-אַבְרָם
וַיֹּאמֶר לוֹרְעֹה אֲתָן אֶת-הָאָרֶץ הַזֹּאת וַיָּבֹאוּ שָׁם מִזְבֵּחַ לַיהוָה
הַנִּרְאָה אֵלָיו: וַיַּעֲתֶק מִשָּׁם הָהָרָה מִקְדָּם לְבֵית-אֵל וַיָּגֵשׁ
אֶתְלָהּ בֵּית-אֵל מִיָּם וְהָעִי מִקְדָּם וַיִּבְרָשֶׁם מִזְבֵּחַ לַיהוָה וַיִּקְרָא
בְּשֵׁם יְהוָה: וַיִּסַּע אַבְרָם הָלֹךְ וַיִּנְסֹעַ הַגִּנְגָּה:

(b) לְעוֹלָם יְהוָה דִּבְרָה נֶצֶךְ בְּשָׁמַיִם: לְדָר וָרָר אֲמוֹנֶת־
כּוֹנֶנֶת אֶרֶץ וְתַעֲמֹד: לְמִשְׁפָּטִיד עֲמִדוֹ הַיּוֹם כִּי הִפֵּל עֲבָדֶיהָ:
לִילִי תוֹרַת־יְשַׁעְשַׁע אֲנִי אֶבְרַתִּי בְּעֵנֶי: לְעוֹלָם לֹא-אֶשְׁכַּח

פָּקַדְיָה בִּיָּבֶם חִיתָנִי : לֹהֲ-אֲנִי הוֹשִׁיעֲנִי כִּי פָקַדְיָה דָרְשָׁתִי :
 לִי קוֹי רָשָׁעִים לֹא-אֶבְדְּנִי עֲדָתִיָּה אֶתְבּוֹנֶן : לְכָל-תַּכְלָה רְאִיתִי
 קֶץ רַחֲבָה כִּצְוֹנָהָ כִּיָּאֵר :

(c) וְהִחְזִיקוּ שֶׁבַע נָשִׁים בְּאִישׁ אֶחָד בַּיּוֹם הַהוּא לֵאמֹר
 לְחַמְנוּ נֹאכֵל וְשִׁמְלָתָנוּ נִלְבָּשׁ רַק יִקְרָא שְׁמִי עָלֵינוּ אֲסָף
 חֲרַפְתָּנוּ : בַּיּוֹם הַהוּא יִהְיֶה צָמַח יְהוָה לִצְבִּי וּלְכָבוֹד וּפְרִי
 הָאָרֶץ לְנֶאֱוֹן וּלְתַפְאֶרֶת לַפְּרִימִת יִשְׂרָאֵל : וְהִיא | הַנְּשֹׂאֶר
 בְּצִיּוֹן וְהַנוֹתָר בִּירוּשָׁלַם גָּדוֹשׁ יֹאמֵר לוֹ כָּל-הַפְּתוּב לַחַיִּים
 בִּירוּשָׁלַם : אִם | רַחֵץ אֲדֹנִי אֵת צֵאת בְּנוֹת-צִיּוֹן וְאֶת-דְּמֵי
 יְרוּשָׁלַם יָדִים מִקִּרְבָּהּ בְּרוּחַ מִשְׁפָּט וּבְרוּחַ בְּעָר : וּבְרָא
 יְהוָה עַל כָּל-מִכּוֹן הַר-צִיּוֹן וְעַל-מִקְרָאָהּ עָנָן | יוֹכֵם וְעֶשֶׂן
 וְנִבְּה אִשׁ לַהֲבָה לִילָה כִּי עַל-כָּל-כָּבוֹד חָפָה : וּסְפָה תְהִיָּה
 לְצִלְיוֹמָם מִחֶרֶב וּלְכִהְסָה וּלְכִסְתּוֹר מִזֶּרֶם וּמִמְּזֶרֶח :

2. Parse all the verbs in the first passage given above. 12

3. Give the rules, with examples, for (a) the pointing of the article; (b) the use of the construct state; (c) the use of the Waw consecutive. 12

4. 'Our Pentateuch is a catena of materials from sources of various dates, and by various authors, arranged according to the persons and events dealt with.' Discuss this statement. 13

5. (a) Decline in the singular and plural with inflexional additions, 13

either כִּלְיָהּ or סִפָּר. (b) Give the Piel (Perfect and Imperfect) of בָּרַךְ.

6. Translate into pointed Hebrew the following:— 25

(a) The people did not drink from the waters of the river, for they were blood.

(b) We have not kept the covenant of our God with all our heart.

(c) Trust in Jahweh, the God of Israel, and lean not unto thine own understanding.

(d) Bury me not in Egypt, but I will lie with my fathers and thou shalt bury me in their burying-place.

(e) And they forgot Jahweh, and he sold them into the hand of their enemies and they fought against him.

HEBREW.

ADDITIONAL PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. (a) Translate as literally as possible:—

10

וַנֵּשׁ הָעָם אִישׁ בְּאִישׁ וְאִישׁ בְּרֵעֵהוּ וַיְהִי בַּיּוֹם הַהוּא
וַיִּהְיֶה בִּנְקֻדָּה: כִּי־יִתְּפֹשׂ אִישׁ בְּאָחִיו בֵּית אָבִיו שְׂמֻלָּה
לְכֹד קָצִיו תִּהְיֶה־לָּנוּ וְהַמְכֻשָּׁלָה הַזֹּאת תַּחַת יָדָה: יֵשָׁא בַּיּוֹם
הַהוּא לֵאמֹר לֹא־אָהִיָּה חֲבֹשׁ וּבֵבִיתִי אִין לֶחֶם וְאִין שְׂמֻלָּה
לֹא תִשְׁיַמְנִי קָצִיו עִם: כִּי כָשְׁלָה יְרוּשָׁלַם וַיְהוּדָה נָפַל כִּי־
לְשׁוֹנָם וּמַעֲלָלֵיהֶם אֱלֹהֵיהוּה לְמִרוֹת עֲנִי כְבוֹדוֹ: הִכְרַת פְּגִיָּהֶם
עָנְתָה בָם וַחֲמָאֲתָם בְּסֹדֶם הִנֵּדוּ לֹא כִּחְדוֹ אוֹי לְנַפְשָׁם כִּי־
נָמְלוּ לָהֶם רָעָה: אָמְרוּ צַדִּיק כִּי־מֵיִב בִּי־פָרִי כַּעֲלָלִיָּהֶם יֹאכְלוּ:
אוֹי לְרָשָׁע רָע־כִּי־נִמְוֹל יָדָיו יַעֲזִיָּה לוֹ: עַמִּי נִגְשָׁיו כִּיעוֹלָל
וְנָשִׁים מְשָׁלוּ בּוֹ עַמִּי מֵאֲשֻׁרֵיהֶם מִתַּעִים וְדָרָה אֲרַחֲתִיהֶם בָּלְעוּ:
נָצַב לָרִיב יְהוּדָה וְעָבִיד לָדָו עַמִּים: יְהוּדָה בְּמִשְׁפָּט יִבְוֹא
עִם־זִמְנִי עַמּוֹ וְשָׂרָיו וְאַתָּם בְּעֶרְתָּם הַכֶּרֶם גִּזְלַת הָעֲנִי בְּבִתְיָכֶם:
מִלְּכֶם מִדְּכָאוֹ עַמִּי וּפְגִי עַנְיִים תִּמְחַנְנוּ נֹאכ־אֲדֹנֵי־יְהוּדָה צְבֹאוֹת:

(b) Parse the following and explain anything unusual in their form:—

7

נָצַב; בְּעֶרְתָּם; בְּבִתְיָכֶם; לָכֶה; כִּחְדוֹ; יֹאכְלוּ; יַעֲזִיָּה

(c) What is the Daghesh Forte Conjunction? Give an example of its use.

3

2. Translate:—

30

(a) וַיְהוּדָה נָלָה אֶת־אֲלֹוֹ יִמְוֹאֵל יוֹם אֶחָד לִפְנֵי בּוֹא־שָׂאוֹל
לֵאמֹר: כָּעֵת כִּי־חָרַח אֱלֹהֵי אִישׁ מֵאֶרֶץ בְּגִימּוֹ וּמִשְׁחַתּוֹ
לְנִגִּיד עַל־עַמִּי יִשְׂרָאֵל וְהוֹשִׁיעַ אֶת־עַמִּי מִיַּד פְּלִשְׁתִּים כִּי

רִאִיתוֹ אֶת־עַמִּי כִּי בָּאָה צָעֲקָתוֹ אֵלַי : וּשְׁמוּאֵל רָאָה אֶת־
שְׂאוּל וַיְהוּה עָנָהוּ הִנֵּה הָאִישׁ אֲשֶׁר אָמַרְתִּי אֵלַיִּה זֶה יַעֲזֹר
בְּעַמִּי : וַיִּבֶשׁ שְׂאוּל אֶת־שְׁמוּאֵל בְּתוֹךְ הַשָּׁעַר וַיֹּאמֶר הַגִּידָה־
נָא לִּי אֵיזָה בֵּית הָרֹאֶה : וַיַּעַן שְׁמוּאֵל אֶת־שְׂאוּל וַיֹּאמֶר
אֲנִכִּי הָרֹאֶה עָלָה לִפְנֵי הַבָּמָה וְאֶכְלֶתֶם עִמִּי הַיּוֹם וּשְׁלַחְתִּיךָ
בַּבֹּקֶר וְכָל אֲשֶׁר בַּלְבָּבְךָ אֲנִיד לָךְ :

(b) כִּי יַעֲצָתִי הָאָסֶף יֹאסֵף עָלֶיךָ כָּל־יִשְׂרָאֵל מִדּוֹ וְעַד־בְּאֵר
שָׁבַע בַּחֹל אֲשֶׁר־עַל־הַיָּם לָרֹב וּפְנִיד־הַלְכִים בַּקָּרֶב : וּבָאנוּ
אֵלָיו בְּאַחַת הַמְּקוֹמֹת אֲשֶׁר נִמְצָא שָׁם וּנְחַנּוּ עָלָיו כַּאֲשֶׁר יָפַל
הַטָּל עַל־הָאֲדָמָה וְלֹא־נִוְתַר בּוֹ וּבְכָל־הָאֲנָשִׁים אֲשֶׁר־אִתּוֹ
נָס־אֶחָד : וְאִם־אֶרְעִיר יֹאסֵף וְהַשִּׂיאוּ כָּל־יִשְׂרָאֵל אֶל־הָעִיר
הַהִיא חֲבָלִים וְסַחֲבָנוּ אֹתוֹ עַד־הַנַּחֵל עַד אִשָּׁה־לֹא־נִמְצָא שָׁם
נָס־צָרוּר : וַיֹּאמֶר אַבְשָׁלוֹם וְכָל־אִישׁ יִשְׂרָאֵל טוֹבָה עֲצַת
חַוִּשִׁי מֵעֲצַת אַחִיתָפֶל וַיְהוּה צָוָה לְהַפִּיר אֶת־עֲצַת אַחִיתָפֶל
הַטוֹבָה לְבַעֲבוֹר הָבִיא יְהוּה אֶל־אַבְשָׁלוֹם אֶת־הָרָעָה :

3. Render the following into Hebrew :— 5
(a) And he again did so.
(b) And they spake one to another.
4. (a) Explain the form **לֵאמֹר** 6
(b) What is the use of the substantive verb **אֵין** ?
5. (a) Account for the difference in the form of the plural of **הַר** 6
(hill) and of **עַם** (people).
(b) What is the pointing of the particle **ל** with nouns and with infinitives ?
6. Either, (a) Parse and explain the following forms :— 8
יָנִיד ; קִחַת ; יָקָחוּ ; הֵן ; נִשְׁתַּת

Or, (b) Point the last four words in Question 1 (a) and remark on the peculiarities.

7. (a) Translate into Hebrew:—

25

And behold this day I am going in the way of all the earth, and ye know in all your heart and soul that not one thing hath failed (נִפְּלָה) of all the good things which the Lord your God spake concerning you; all are come to pass for you and not one thing hath failed thereof. Therefore it shall come to pass that as all good things are come upon you which the Lord your God promised you, so shall the Lord bring upon you all evil things.

(b) Write in Hebrew an account of the incident of Cain and Abel

(c) Write out the imperative and infinitive Pe'al of 4
 and`

(d) Write out the perfect and imperfect Ethpo'el 5
 of 11.

9. Translate into Syriac:—

25

(a) And now, O Lord God, thou art God and thy words are true, and thou hast promised this goodness unto thy servant: therefore now let it please thee to bless the house of thy servant that it may continue for ever before thee, for thou, O Lord God, hast spoken it; and with thy blessing let the house of thy servant be blessed for ever.

(b) Thou comest to me with a sword, but I come to thee in the name of the Lord whom thou hast defied. This day will the Lord deliver thee into mine hand, and I will smite thee and take thine head from thee.

(c) The men and the women of the city.

(d) The houses of the people of that place.

ADDITIONAL PAPER.

The figures in the margin indicate full marks.

- (2)

10

(b)

(e)

خدا ہمیں نصیب کرے، یہ خدا کا فضل ہے، خدا ہمیں نصیب
 فرمائے۔ **مجلس** میں حضرت **محمد** علی **رحمہ اللہ** فرماتے ہیں: **مجلس**
 میں **مجلس** (یا علی **رحمہ اللہ**)۔ **مجلس** (یا علی **رحمہ اللہ**)۔ **مجلس**
 فرماتے ہیں: **مجلس** (یا علی **رحمہ اللہ**)۔ **مجلس** (یا علی **رحمہ اللہ**)۔ **مجلس**
 فرماتے ہیں: **مجلس** (یا علی **رحمہ اللہ**)۔ **مجلس** (یا علی **رحمہ اللہ**)۔ **مجلس**
 فرماتے ہیں: **مجلس** (یا علی **رحمہ اللہ**)۔ **مجلس** (یا علی **رحمہ اللہ**)۔ **مجلس**
 فرماتے ہیں: **مجلس** (یا علی **رحمہ اللہ**)۔ **مجلس** (یا علی **رحمہ اللہ**)۔ **مجلس**

2. (a) Point and remark on the words underlined. 25
 (b) What is the construction after the verb أجاب?
 (c) Write out the *perfect*, *imperfect* and *imperative* Piel of أف and أف, and Paal of أف
 (d) Attach pronominal suffixes to the *sing.* and *plur.* of أف (father).
 (e) Illustrate with examples the use of أف in the sense of "every", "whole", "all."
 3. Translate into English:— 30
 (a)

[illegible]

(b)

١٥ لَعَبٌ يُذَمُّ
 حُفْلًا ۖ اَصْلُهُ ۖ اَللَّحْفُ
 بُصْبَةٌ كَيْسٌ يَمْلَأُ
 نَهْنَهًا يَمْلَأُ كَيْسَ بَصْبٍ .
 صُفْلًا ۖ جَمْعُهُ
 تَلَحُّفٌ فُلُكٌ هِيَ هَتَّ سِتٌّ .
 ١٦ صَفْهٌ خَلَا سَقَصٌ
 مَقْصَبٌ قَدْ حَكَبَ حَقَبًا

- | | |
|--|----|
| 4. Point passage (a) in question (3). | 10 |
| 5. Translate into Syriac:— | 25 |
| <p>(a) I will arise and go to my father and will say unto him, Father, I have sinned against heaven and before thee, and am no more worthy to be called thy son.</p> <p>(b) O Lord God, the word that thou hast spoken concerning thy servant and his house, establish it for ever, and do as thou hast said. And let thy name be magnified for ever, saying, The Lord of hosts is the God over Israel; and let the house of thy servant David be established before thee.</p> | |

25

ARMENIAN.

Paper-setter and Examiner—M. J. SETH, ESQ.

COMPULSORY PAPER.

The figures in the margin indicate full marks.

1. Translate into English :—

25

(a) Իբրև ետեո աէր աստուած լծէ բազմացան զորիք մարուկն ի վերայ երկրի, ստրչացաւ զի արար զմարուն և աւէ, ջնջեցից զամի նայն մարմին զոր արարի, մի մնացէ ոգի եմի մարուկոնք յայդմկ, վսն լինեղոյ ռոցա մարմին : Բայց Նոյ այր արուար կառարեալ հաճոյ եղև աստուծայ : Լաէ աէր աստուած ցնոյ, ժամասակ ամինայն մարուայ հասեալ է, չի լցաւ երկիր ապականութեամբք ի նոյանէ և աճա եո ապականիցից զնոսա և զերկիր : Լլուք արոյ դու քեշ ոտպան ի զտրեկուսի փայտից, խորշ խորշ շործեսցետ լոտպանն և նաւթիւ ծիփեոցեո զնա ներքոյ և արօաքոյ : ,

(b) Իհար աէր զմանուկն և հիւանաւցոն : Խնդրեալք Կաւեթ յաստուծոյ վսն մանկանն, պահեալ պահո և անկաւ ի վերայ գետնայ : Իւ յարեան ի վերայ նորածառայք տան՝ յարսցանիչ զնա և ոլ իամէր յառնիլ ի դետնայն, և սլ եկեր ընու նոսա հաց իւ եղև յաւուրն ետթնիւրդի միւսանել մանկանն և երկեան ծառայքն դաւթի պատիլ նմա : Ետիո դաւթ եթէ չեզեն ծառայք նորա և իմպաւ եթէ միւսա մանուկն. յարեաւ ի գիտնոյի, լսուպաւ և օծաւ, փսխեալ զննա երծիւր, և եմաւ ի տունն լատսծոյ և եգկիր եպաբ նմա :

(c) What parts of speech are the words underlined in the above passages ?

(a) Write short notes on the following in classical Armenian :— 13

Լլու բգրիգոր լուսաւորիչ .

Լլու բ մրեմիս լ բ մրաղտոց :

2. (a) Decline :—

Կիր, ջուր, հոտ, քուն, եկեղեցի :

(b) Conjugate :—

5

ուսանիմ, ուտեմ, զանամ .

(c) Correct the following :—

15

Յեմարկու-Թուն Նսր-Նուզա եղել ամ 1605 ասուրո Շահ
Աբբաս արքայի աթոռից և նոր Թլական բաղալ վանն նախնիսց միր
այլակալ զի զատ զաեկեայ անսորսու-Թեւն նոսա :

3. Translate into classical (Կրթաւ) Armenian :—

25

(a) The Armenians are the only Christian nation in Asia, the Armenian nation was the first to become Christian.

(b) It is this nation which seems to be specially marked out to become in time the pioneers of civilization and religion.

(c) We search in vain the faded pages of Sanskrit writers and Muhammadan chroniclers of ancient times for any reference to this enterprising commercial people in India.

(d) The wise man practises humility—the bough laden with fruit bends its head to the earth.

ARMENIAN:

ADDITIONAL PAPER.

The figures in the margin indicate full marks.

1. (a) Translate into English :—

10

Ամարսպի ոմն Ճանապարհորդեալ եկն ընդնայն աւանդաւ, և
տեոեալ զնա գթացաւ, և մատուցեալ պատեաց զվէր նսրո արկեալ
ի վերայ ձէթ և գինի, և եռեալ ի վերայ գրառաւ իւրոյ ած զնա ի
պանդոկի մի և ևսրմանեաց զնա :

(b) Give the meanings of the following words in English :—

10

Ատէպ, Թափիւ, ձորձ, հեղանի, Ժանո, անգուլ, ուղեկից :

2. Translate into English :—

30

Էլ եղեալ ի մտանշու տեմսսի, ընդ առաջ ի զտ նմա կոռնելիսո,
անկեալ աւ ստոն նսրա երկիր պաւանէր : Էլ պեարսս կանգնեաց զնա
և ասէ. Յոռչ կաց և եո ինքն մարո իմ : Եւ խոռեշալ ընդ նմա եմոտ
ի նիրքո և դոմանէր անդ ժողովեալ զբաշումո : Եւ ասէ ցնոոա. Դուք
եղբնիւ գիտէք որպէս անմարթէաւն Հրէի հպիւ կամ միրձենոլ աւ
այլանգի և ինձ Առուած եցոյց մի զսք խառնակ կամ անսուրբ առել ի
մարդկանէ :

3. Construct short sentences to illustrate the use of the following words in classical Armenian :—

25

Յորմէ հեոէ, ըսա որսմ, յազաբս, ի շնորհս, յերեսոց, ի
յորգանս. ի նախառինս, այսու ամինայնիւ :

4. Translate into classical Armenian :—

25

It would be difficult, perhaps, to find the annals of a nation less stained with crimes than those of the Armenians, whose virtues have been those of a peace and their vices those of compulsion. But whatever may have been their destiny—and it has been bitter—whatever it may be in futuro, their country must ever be one of the most interesting on the globe, and perhaps their language only requires to be more studied to become more attractive. If the Scriptures are rightly understood, it was in Armonia that Paradise was placed.

CLASSICAL TIBETAN.

Paper-setter—MAHAMAHOPADHYAYA DR. SATISCHANDRA VIDYA-BHUSHAN, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate two of the following passages into English :—

15

(a) དག་སྤྱོད་དག་སྤྱོད་བྱུང་བ་འདས་པའི་དུས་ན་མཆོད་ཞིག་
གི་འགྲམ་ན་གིང་བེལ་བའི་ཆལ་ཡོད་དེ། གིང་བེལ་བའི་ཆལ་དེ་
ན་རི་བོང་དུག་ཅིག་གནས། གིང་བེལ་བའི་ཆལ་དེ་ནས་གིང་བེལ་
བ་ཞིག་མཆོད་འོ་ནང་དུ་རིབ་པ་ན་སྒྲ་ཅལ་ཅས་ཟེར་བ་བྱུང་ངོ་།
རི་བོང་དུག་པོ་དེ་དག་གིས་སྒྲ་ཐོས་ནས། དེ་དག་ལུས་ཆུང་བས་
སྒྲག་ཏེ་འབྲས་པར་བརྩམས་སོ། དེ་དག་འབྲས་པ་པ་དག་གིས་
མ་ཐོང་ནས་དེ་དག་གིས་སྒྲས་པ། ཤེས་ལྡན་དག་ཅི་ཕྱིར་འབྲས།
རི་བོང་དག་གིས་སྒྲས་པ། ཅལ་ཅལ་ཟེར་བ་བྱུང་ངོ་། དེ་ནས་
སྤྱོད་དག་གིས་ཀྱང་འབྲས་པར་བརྩམས་སོ། །

(b) དེའི་ཚོན་མི་དེའི་ཆུང་མ་བདག་གིས་སྤྱོད་སྤྱོད་པ་ཅི་ཞིག་
བྱས་ན། ཁྱིམ་ཐབས་ལྟར་ཏེ་འདྲ་བར་སྤྱོད་པར་བྱུག་ནས་

ཉི་མ་དང་ཟླ་བ་ཙམ་ཡང་བཟུང་སེད་དེ་མི་གཞན་ཡང་མི་སེམང་
 ལྷམ་གྱི་ཉུ་མི་དགའ་ནས་ཡང་འདི་ལྷམ་དུ་བསམས་སོ། སངས་
 རྒྱལ་བཙུང་ལྷན་འདས་འཛིག་དེན་ན་བཞུགས་དེ་སེམས་ཅན་གང་
 ལྷལ་བཟུང་གིས་གདུངས་པ། དེ་དག་གི་མགོན་དང་སྐུ་བས་མཛད་
 དེ་ཐར་པར་མཛད་དོ་ཞེ་ན། བཙུང་ལྷན་འདས་ལ་བདག་གྲངས་
 ལས་སྤྱད་འཛུལ་ལོ། ཐུགས་བརྩེ་བར་དགོངས་དེ་བདག་གི་མུན་
 དུ་མངོན་སུམ་དུ་གཤེགས་ཤིང་བདག་ལ་རྒྱང་ཟད་ཙམ་ཞིག་ཞལ་
 རྩོན་པར་ཅི་མ་རྒྱང་ལྷམ་དུ་བསམས་སོ། །

(a) དེའི་སང་ཉིན་ལྷོ་མོ་གཞན་ནས་ས་གཅིག་གིས་ཀྱང་ཉུ་མ་
 གོ་ཞིང་། ལྷོ་མོ་གྲང་ཅིན་བཞེན་པ་ཤེས་ཁོར་གི་སོ་སྤྱད་གིས་
 བཤད་པ་བཞེན་རྒྱལ་པོ་ལ་ཞུས་པས། དེ་ནས་རྒྱལ་པོ་འདི་བྲིམས་
 ཡིག་ལ། ཨོ་རྩོག་གི་རྒྱང་མ་དེ་གཉིན་རྒྱལ་པོ་འདི་ཨོ་རྩོག་དེ་རང་
 གིས་བྲིབ། ལྷོ་རྩོགས་དེ་ལ་མི་བྲིབ་ཟླ་ཅེ་གཅིན་པ་ན།
 ཨོ་རྩོག་གཡས་སྤྱོགས་སུ་ཡོད་པ་དེ་དང་བར་དུ་ཡོད་པ་དེ་སྤྱོགས་
 གཅིག་དུ་འཕྱར་ནས་སོང་ངོ་། གཡས་དུ་ཡོད་པ་དེ་བྱ་དེ་ཁོར་ང་
 གཅིག་པོ་སྤྱོགས་གཞན་དུ་འཕྱར་ནས་སོང་ངོ་། དེ་ནས་ལྷོ་མོ་དེ་
 ལ་ཚང་མའི་ནང་ནས་གོ་ས་ཅིན་པོ་ཞིབ་བོ་ །

Parse འབྲེམ་པར་ in (a) in the above. Conjugate the root of ལྷོ་ན་པ་ in
 (b) in the present and past tenses third person singular number.
 Decline ལྷོ་པོ་ in (c) in the instrumental and ablative cases.

2. Translate the following into English :—

10

གཞན་གྱི་ཆོག་གིས་མཛེན་བཤེས་མི་སྤང་ནིང་།

གཞན་གྱིས་སྦྱས་པ་དག་ལ་བདག་པར་བྱ།

འབྱུང་པར་འདོད་པ་སྐབས་ཚེ་ལ་བྱེད་པས་ན།

སྤྱི་བོ་པ་མ་ཅན་ལ་ཡོད་མི་ཕྱོད།

ལྷ་སྤྱིས་གོང་པ་བརྟུན་དུ་སྦྱ་བྱེད་པ།

མཛེན་བཤེས་འབྱུང་པར་བྱེད་པ་སྤྱིས་ཏེ།

པ་མ་སྦྱ་བ་དེ་ནི་བསད་གྱུར་ནས།

བདེ་བས་མཛེན་བཤེས་དགའ་བར་བྱེད་པ་ལྟེན།

3. Give in English a summary of *one* of the following stories :—

8

(a) ཆོག་ཅུབ་ངན་པ་སྦྱས་པ་དང་། ཆོག་འཇམ་བཟང་པོ་

སྦྱས་པ་གཉིས་ཀྱི་ཉེས་དམིགས་འཕྲམ་དུ་བྱུང་བ་ནི།

(b) བྱ་བདུན་གྱིས་པ་བསྐྱད་པ།

4. Enumerate the sixteen rules laid down by King Srong-tsan-
gam-po referred to in the following :— 10

གྲུལ་པོ་སྤོང་བཅན་སྦྱེས་པོས་མི་ཚོས་གཙང་མ་བཅུ་དྲུག་

གྲི་ཁྲིམས་བཅས་པར་མཛེན་པ་ནི་འདི་ལྟར་།

5. (a) Give the meanings of the following words and phrases, and
frame sentences in Classical Tibetan to illustrate them :— 10

བར་དུ་; མ་ཅུ་; ག་གའི་; ཅི་ཞིག་ན་; ཅིག་གོ་རྒྱུ་མཁན་;

ངེས་པ་ནིད་; and མེས་མེད་.

(b) Turn the following into Classical Tibetan :—This woman is
indeed pretty. From among all. As far as I know, that is so.
Whoever shall humble himself shall be exalted. That same gentle-
man will employ you. They have gone in company with one another.
Have you seen the Treaty that was signed at Lhasa ? 7

6. Give the substance of the following in English :—

8

ཆོས་རྣམས་སྤྱོད་དུ་ཡིད་འགྲོ་ཡིད་གཙོ་ཡིན།
 ཡིད་མགྲོགས་རབ་དུ་དང་བའི་སེམས་ཀྱིས་ནི།
 སྤྱོད་སེམས་བྱས་ན་དེ་ནས་བདེ་བ་དེ།
 འཕྲོབ་འགྱུར་གྱི་བ་མ་ཡོལ་བར་མི་འགྱུར་བཞིན །

7. Translate the following into Classical Tibetan :—

25

As a rule a great many camels, with their drivers, cross the desert together. This is called a caravan. The camel has a keen sense of smell. Often when a whole caravan is nearly dead with heat and thirst, the camel scents water from afar. It is then left to guide itself; and, to the joy of the driver, will lead him to a spring. Almost dead with thirst, and faint and weary, the Arab sees the water. He knows that his life is saved by means of his faithful camel.

CLASSICAL TIBETAN.

ADDITIONAL PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate the following into English :—

10

ནས་ཞིག་མཉན་ཡོད་ཀྱི་ཚེ་པ་རྒྱ་མཚོར་གཟིངས་བཏང་ནས་
 སིང་ལར་སླེབས་པ་འགའ་མཚན་མེད་པའི་གཉིད་ཐོར་ངས་སད་ནས།
 ངལ་གསོས་དགའ་བའི་སེམས་ཀྱིས་བཅོས་ལྷན་འདས་ཀྱིས་
 གསུངས་པའི་ཆོས་མཁུ་བྱ་སྤངས་པས། ཐོབ་པ་ཅད་དུ་ཐུག་པའི་
 ཤིང་གི་ཐོས་ནས་ཚེ་པ་རྣམས་བཀུག་སྟེ་ཅེ་ཡིན་དེས་པས། འདི་
 དག་སངས་རྒྱས་བཅོས་ལྷན་འདས་ཀྱིས་སེམས་ཅན་ལ་ཐུགས་བརྩེ་
 བས་གསུངས་པ་ཡིན་ཞེས་སངས་རྒྱས་ཀྱི་ལོ་རྒྱུས་ཞིབ་དུ་བཤད་

པའི་ཚོ། སངས་གྲུ་གྱི་མཚན་དེ་གོས་པ་ཅིས་གྱིས་སྒྲིན་གྱི་བག་
 ཆགས་ སད་ནས་ མ་བྱའི་བུ་མོ་འབྲུག་གི་སྤྱོད་པ་བཞིན་དགའ་
 ཞིང་། ལུས་བསྐྱུ་གཡོ་ལེས་འབྲུག་མི་ཤེས་པ་བྱུང་། དེར་མོས་
 བཅོམ་ལྷན་འདས་ལ་ཁྱུ་ཡོག་ཡོགས་པར་ཚོང་པ་ནམས་ལ་བསྐྱར་རོ།

2. (Give in English a summary of— 10

ཁྱིམ་བདག་དཔལ་སྤྲུམ་གྱི་དོགས་བཞིན།

3. (a) After what letters are the suffixes གོས་ and གྱིས་ used ? 4

(b) Illustrate in Classical Tibetan two of the following:—a demonstrative pronoun, an impersonal pronoun, and an indefinite pronoun. 2

(c) Conjugate the root of གཏོང་བ་ in the present, past, and future tenses, indicative mood, third person singular number. What is the form of this root in the imperative mood second person singular number ? 6

4. (a) Name the five prefixes in Classical Tibetan. 2

(b) How is the subjunctive mood formed in Classical Tibetan ? Give examples. 4

(c) Give equivalents, in Classical Tibetan, of the following:—once more, yet, eventually, everywhere, consequently, punctually, diligently, perhaps, and by no means. 7

5. Translate two of the following extracts into English:— 30

(a) ལྷ་གཅིག་ཀྱང་ཡུལ་གྱིས་ཕྱག་ནས་འཇུས་ཤིང་འབྲལ་མི་
 བོད་པ་ལྟར་ཡོད་པ་ན་ཡང་། བོད་དུ་འགྲོ་དགོས་པར་དགོངས་དེ།
 ལྷ་གཅིག་ལ་ཇོང་བསམ་གྱིས་མི་བྱལ་པ་མཛད་དོ། འབྲུ་སྒྲི་སྒྲི་
 ཚོགས་གྱིས་བོན་ཡང་བསྐྱུམས། དེ་ནས་ཤིང་དྭ་ལ་བོར་ལའི་སྤྱིང་
 དུ་ཇོ་བོ་ཤྲུ་བཞུགས། འཁོར་ལོ་དེ་རྒྱ་ནག་ན་སྤོབས་ཆེ་བའི་གུད་
 ལྷ་དགའ་དང་ཁྱུ་དགའ་གཉིས་ལ་འདྲིན་དུ་བཞུགས། གཞན་ཡང་
 དེ་ན་བོ་ཆེ་དང་། དར་དང་། གོས་དང་། སྒྲིན་དང་། འབྲལ་

གྱི་ཡོ་བྱད་རྣམས་བཀལ་བའི་དྲ་དང་རྟུ་རྩ་ཇ་མོ་ལ་སོགས་པ་མང་བོ་
བཟངས་ཏེ། བོད་སློན་རྣམས་ལའང་སློན་མོ་གནང་སློན་དཔག་དུ་
མེད་པ་མཛད་དོ།

(b) ཡོན་ཏན་མེད་པའི་ཚོགས་ཀྱི་སློབ་དཔོན་ལས། ཤེས་
རབ་ལྡན་པའི་གྲ་སློབ་བྱས་ན་འཛོངས། མི་ཉན་ཁ་འདུས་མང་
པོ་འི་དཔོན་ལས། ཡ་རབས་བཅང་སློད་ལྡན་པའི་གཡོག་པོ་སྟེན།
ལང་ཤོར་རྒྱན་པོ་མི་ཡི་ཁྱུར་མི་ཚུད། རྩོ་གོས་ཟབ་དང་མགོ་
འཐོམས་ནོར་ས་ཡོད། སླུང་རྩུང་མི་དང་པོ་གྲུང་ནོར་ས་ཡོད།
རང་བཞིན་བཟང་དང་མདོ་མེད་ནོར་ས་ཡོད། དྲང་པོ་འི་མི་དང་
སློན་པ་ནོར་ས་ཡོད། རྩུང་འཛོམས་ཅན་དང་བཙན་པ་ནོར་ས་ཡོད།
ཚོ་སློབ་ཐོངས་དང་ཟླ་པོ་ནོར་ས་ཡོད། བརྒྱ་བག་ཅན་དང་མཁས་
པ་ནོར་ས་ཡོད།

(c) ཡང་བྱ་ཆེན་ཁྲ་བྱུག་གིས་ཞལ་ནས། ད་རང་རེ་རྣམས་
གནས་སྐབས་སྤྱུ་འཛོམས་པ་འདི། སེམས་ཅན་སྟོ་ཞིང་སྟེན་དུ་
ཚོར། ཚོས་ཀྱི་གཏམ་འཕེལ་བས་ལས་འབྲས་བཟང་། སང་པོ་ད་
ནོར་ཁྲ་ཁྲ་པའི་ནང་དུ་ཡང་ལུང་གི་བྱབ་ཆེན་པོ་ཅུ། ས་བཅུད་ལ་
འཕེལ་འདུས་ཡོང་བས། དེའི་དུས་བོད་ཕྱ་རྣམས་དང་མཇལ་ཕྱད་
བྱེད། དེའི་བར་ལ་ཐམས་ཅད་ཁམས་བཟང་། ད་ནས་ཚོས་ཀྱི་སྟོ་
དང་མ་བྲལ་གྱིས། འདིར་མསྐྱབས་པའི་བྱ་ཕྱན་དང་བྱུ་རྣམས་ལ་
ཚོས་དང་མཐུན་པའི་བསྐྱབ་བྱ་གྱིས་ཤིག། ཅེས་གསུངས་སོ།

6. Translate the following into Classical Tibetan :—

25

(a) A dog had stolen a piece of meat out of a butcher's shop, and was crossing a river on his way home, when he saw his own shadow reflected in the stream below. Thinking that it was another dog, with another piece of meat, he resolved to make himself master of that also ; but in snapping at the supposed treasure, he dropped the bit he was carrying, and lost all. Grasp at the shadow and lose the substance—the common fate of those who hazard a real blessing for some visionary good.

(b) A certain man had the good fortune to possess a goose that laid him a golden egg every day. But dissatisfied with so slow an income, and thinking to seize the whole treasure at once, he killed the goose ; and cutting her open, found her just what any other goose would be !

BENGALI.

(For Female Candidates.)

Paper-setters— { RAI SAHEB DINESCHANDRA SEN, B.A.
RABU JOGINDRANATH BASU, B.A.

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SRIMATI GIRINDRAMOHINI DASSI.

COMPULSORY PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate any two of the following passages into English :—

(a) কুস্তী কহিলেন, “ হে ব্রাহ্মণ ! আমি যে পুত্রকে রাক্ষস সমীপে প্রেরণ করিব, রাক্ষস কখনই তাহাকে বিনাশ করিতে পারিবে না। আমার সেই পুত্র অতিশয় বলবান্ ও সাহসী। সে নিশ্চয়ই তাহার হস্ত হইতে আত্মরক্ষা করিয়া প্রত্যাগমন করিবে। আমি স্বচক্ষে তাহার বিক্রম দেখিয়াছি ; অনেক বলবান্ রাক্ষস সেই পুত্রের সহিত সংগ্রাম করিয়া মৃত্যুমুখে পতিত হইয়াছে।

(b) এক দিন জর্জের পিতা তাহাকে একখণ্ড ক্ষুদ্র কুঠার দিয়াছিলেন। জর্জ কুঠার পাইয়া একান্ত আনন্দিত হইলেন, এবং বাগানে গিয়া ছোট ছোট গাছ কাটিয়া উহার ধার পরীক্ষা করিতে লাগিলেন। তাহার পিতা অনেক বয়ে একটি চেরী গাছের চারা ইংলণ্ড হইতে আনয়ন করিয়া স্বীয় উদ্যানে রোপণ করিয়াছিলেন। জর্জ উহা কুঠারদ্বারা কাটিয়া ফেলিলেন।

(c) সক্রটিসের একজন শিষ্য দুঃখ প্রকাশ করিয়া বলিয়াছিলেন, “অবশেষে বিনা অপরাধে ‘আপনি মৃত্যুদণ্ডে দণ্ডিত হইলেন।” সক্রটিস কহিলেন, “তোমরা কি চাও যে আমি অপরাধী হইয়া প্রাণত্যাগ করি?” যখন কারাধ্যক্ষ তাঁহাকে, বিষপাত্র প্রদান করিলেন, তখন তিনি কারাগারমধ্যে শিষ্যগণের সহিত ধর্ম্মালোচনায় প্রবৃত্ত ছিলেন। সক্রটিস স্বহস্তে বিষপাত্র উত্তোলনপূর্ব্বক নিঃশেষিত করিলেন।

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2. Turn into prose :—

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(a) তবে দ্রোণ লক্ষ্য দেখি জলের ছায়াতে ।

অপূর্ব্ব রচিল লক্ষ্য রূপদ নুপতে ॥

(b) আর কি এ পোড়া আঁধি এ ছার জনমে

দেখিবে সে পাতুধানি—আশার সরসে

রাজীব, নয়নমদি

3. Parse the words underlined in the above extracts, and explain আশার সরসে in extract (b). 4

4. Give some instances of the magnanimity and kind-heartedness of Judhisthir, and of the truthfulness of George Washington as a boy. 9

5. Give a brief account of শঙ্কু as related in the Uttara Rama Charita, showing in what respects this story differs from the legend to be found in the Ramayana. 9

6. Explain the allusions in the following lines :— 5

(a) তুমি মা অভাগী অনাথা দুর্কলা ।

ভজন পূজন যোগ মুগধা ।

(b) দেখাও জননী ধরিলা গো যত

রিপু পদচিহ্ন ললাটভাগে ।

7. Expound the *samāsas* in ভজন পূজন যোগ মুগধা and ললাটভাগ. 2

8. Correct all errors in the following extract :— 11

এই দেশের যাবতীয় লোকগণ একত্র হইয়া একদিন ম্যাজিষ্ট্রেট সাহেবকে বলিল “আমাদিগের ললাটের দুঃ হজুরকে আমরা সদয় চিরিয়া দেখাইতে পারি। আপনি অভিনিবেশ হইয়া শ্রবণ করুন, জমিদার আমাদিগকে যে কি কি অত্যাচার করেন, তাহার সাক্ষী দিতে লোকের অভাব হইবে না।” এখানে যাহারা উপনীত আছেন, তাহাদিগকে হজুর জিজ্ঞাসিত হইলে সকলই অল্পপূর্ব্বক নিবেদিত হইবেন।

9 Put a suitable adverb before each of the verbs in the following extract :—

তিনি হাঁটিয়া যথাস্থানে পৌঁছিলেন। কিন্তু যাহারা তাঁহাকে সেদিন দেখিল, তাহারা তাঁহাকে চিনিতে পারিল না। তিনি শুকাইয়া গিয়াছিলে যে তাঁহার আকৃতি বদলাইয়া গিয়াছিল, তাঁহাকে দেখিয়া বুঝিলাম যে তিনি মৃত্যুর পথে অগ্রসর হইতেছেন।

10. Translate (a), and EITHER (b) OR (c), into English :—

(a) আমি একদিন তাহার সঙ্গে উদ্যানে বেড়াইতে গিয়াছিলাম। তখন প্রভাতকাল, তরুণ সূর্যের রশ্মি কয়েকটি গোলাপফুলের উপর পড়াতে মনে হইল যেন তাহারা হাসিতেছে। কয়েকটি বালিকা আসিয়া উদ্যানস্বামীর নিকট ফুল চাহিল; তিনি দয়া করিয়া তাহাদের প্রত্যেকের হাতে এক একটি গোলাপ দিলেন। বালিকাদের পশ্চাতে একদল বালক অপেক্ষা করিতেছিল। যখন বালিকারা ফুল পাইয়া হাসিমুখে চলিয়া গেল, তখন বালকদল উদ্যানে ঢুকিয়া উদ্যানস্বামীর অনুমতি না লইয়াই ফুল তুলিতে আরম্ভ করিল। তিনি ক্রুদ্ধ হইয়া তাহাদিগকে তাড়াইয়া দিলেন।

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(b) সে কখনও মিথ্যাকথা বলে না। যদি কোন অন্য় কাজ করে, তবে দণ্ডের ভয়ে সে তাহা গুরুজনের নিকট গোপন করে না। ক্লাসে সে বড় শাস্ত, যখন শিক্ষক মহাশয় কোন উপদেশ দেন, তখন সে একাগ্র হইয়া তাহা শ্রবণ করে এবং সেই উপদেশানুসারে কার্য করিতে চেষ্টা করে। সে স্কুল হইতে বাড়ী যাইয়া কিছু খাইয়া খেলা করিতে যায়। এক ঘণ্টা খেলার পর সন্ধ্যার বাজি জ্বলিলে পড়িতে বসে।

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(c) আমি তোমার কোন অনিষ্ট করি নাই, তবে তুমি সর্বদা আমার নিন্দা কর কেন? আমার অনেক দোষ আছে তাহা আমি স্বীকার করি, কিন্তু তোমার কি কোন দোষই নাই? এমন কে আছে, যে দোষ শূন্য? আর আমার দোষ প্রচার করিয়া তুমি কি লাভ পাও? আমি তোমার সঙ্গে যতই বন্ধুত্ব স্থাপন করিতে চেষ্টা করি, তুমি ততই তাহা ভাঙিতে চেষ্টা করিয়া থাক।

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BENGALI.

(For Female Candidates.)

ADDITIONAL PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate one of the following two passages into English :— 10

(a) একদা কতিপয় তরুণ একত্র হইয়া এক ব্রাহ্মণের কতকগুলি গাভী অপহরণ করিল। ব্রাহ্মণ অর্জুনের নিকট গমনপূর্বক উচ্চৈঃস্বরে ক্রন্দন করিতে করিতে কহিলেন, “দুষ্ট চোরগণ আমার গোধন হরণ করিয়া লইয়া যাইতেছে।” অর্জুন ব্রাহ্মণের কাতরোক্তি শ্রবণে অনুকম্পাপরতন্ত্র হইয়া মাঠে বহিয়া তাঁহাকে আশ্বাস প্রদান করিলেন।

(b) দয়ালীলা কৃত্তী সেই করুণরসোদ্দীপক ক্রন্দনশব্দ শ্রবণে অতিশয় দুঃখিত হইয়া ভীমকে কহিলেন, “আমরা পাঁপাত্মা দুর্ধ্যোধনের অজ্ঞাত-সারে এই ব্রাহ্মণের আশ্রয়ে পরমস্বখে বাস করিতেছি। ব্রাহ্মণ আমাদের যৎপরোনাস্তি সমাদর ও স্নেহ করিয়া থাকেন। এক্ষণে স্পষ্টই বোধ হইতেছে, ব্রাহ্মণ কোন মহাবিপদে পড়িয়াছেন।”

2. Expound the *samasas* in the words underlined in the above extracts. 3

3. Explain মনুস্মৃতি-পুরাণ, চরণোপাধানভূত and পাবকপ্রসাদলক। 5

4. Describe the last days of George Washington. 4

5. Correct all errors in the following extract :— 9

যে হৃদয়-আকাশ উর্বর নহে, তাহাতে কখনও শিক্ষার বীজ অঙ্কুরিত হয় না। স্বয়ং কার্য তুচ্ছ করিয়া যে ব্যক্তি বাজেচর্চার রত হয় গুণীগণ কদাপিও তাহার প্রশংসা করেন না। প্রত্যহ অপরাহ্নে কতকটা ভ্রমণ করিলে তাহাতে বায়ামের ফল দর্শে। আমি তোমার দুর্গাম করিয়া বেরাই, এ কথা কে কহিল? তাহার ব্যবহারে আমার আশাভঙ্গ ও মনভঙ্গ উভয়ই হইয়াছে।

6. Write short sentences to illustrate the use of the following words :— 4

অন্যতম, নিম্নতর, লাঞ্ছন and ক্ষেপুস্প।

7. Turn into indirect form :— 10

রাম বলিল, “শ্যাম! তুমি আজ সকালে কোথায় ছিলে? আমি তোমাদের বাড়ী যাইয়া তোমাকে পাই নাই।” শ্যাম কহিল, “আজ

সকালে ৭ টার পর ঠিক এক ঘণ্টার জন্ত আমি বাহিরে গিয়াছিলাম।
তুমি কি সেই সময় গিয়াছিলে? সেই সময়টুকু ছাড়া আমি সারা দিন
বাড়ীতেই ছিলাম। যা'হউক, এখন চল বেড়াইতে যাই।”

8. Explain in simple Bengali any two of the following passages :— 25

(a) যে নীলিমা আকাশের শূণ্যতার উপর সিংহাসন পাতিয়া আছে,
যাহা পুঞ্জীভূত নবনীরদের অঙ্গের শ্রীশ্বরূপ, যে নীলাভ জ্যোতিঃ
কালিন্দীর জলের উপর ভাসিয়া বেড়ায় এবং নীলোৎপলদলে যাহার
অপূর্ব বিকাশ, সেই শাস্ত্র নীলবর্ণের মাধুর্য্য বৈষ্ণবদিগের চিত্ত বিশেষ-
রূপে অধিকার করিয়াছিল। এই বর্ণ জলে স্থলে—নিবিড় বনরাজিতে
ও সমুদ্র-তরঙ্গে তাঁহারা সতত প্রত্যক্ষ করিতেন এবং ইহাতেই তাঁহাদের
চক্ষু মুগ্ধ হইত। এই জগৎব্যাপী নীলবর্ণ তাঁহারা ভগবৎ চিহ্ন বলিয়া
গ্রহণ করিয়াছিলেন। এই জগৎ চৈতন্যদেব, মেঘ দর্শনে মূর্ছিত হইতেন,
যমুনার নীলজলে ঝাঁপাইয়া পড়িতেন এবং একবার নীলসমুদ্রে পড়িয়া
ডুবিয়া গিয়াছিলেন।

(b) তাজমহল শুধু ভাস্কর্যের চরম নহে—উহা ভাবের চরম। একি
কোন প্রেমিকের অশ্রু কঠিন হইয়া শ্বেতমর্মরে পরিণত হইয়াছে? কিম্বা
কোন দেবীকণ্ঠচ্যুত অস্মান যুথিকামাল্য অভিগুণ্ত হইয়া, কঁঠোর হইয়া
রহিয়াছে? অথবা পার্থিব শোক দেবতার পদে জানাইবার জন্ত কেহ
কি স্বর্গের অমল উপাদানে শুভ্রবেদী নিৰ্ম্মাণ করিয়া রাখিয়াছে? ইহা
দেখিয়া মনে হইল যেন স্বর্গের কথা লইয়া কোন দেবতা একখানি
আমর কুাব্য রচনা করতঃ ভ্রমক্রমে পৃথিবীতে ফেলিয়া গিয়াছেন।
হয়তঃ সেই ভ্রম ধরা পড়িলে স্বর্গের পরীরা উহাকে উদ্ধে উড়াইয়া
লইবার জন্ত এখনই আনিবেন। একি স্বপ্ন? চক্ষু যেন বলিতেছে,
“এই স্বপ্ন বিলীন হইবার পূর্বে মুহূর্ত্তকাল ইহা স্তব্ধ বিশ্রামে
দেখিয়া লও।”

(c) তাঁহার সঙ্গে এই অপ্রত্যাশিত মিলনে আমার স্মৃতিসাগর অকস্মাৎ
মথিত হইয়া উঠিল। সুখ দুঃখের অনেক অতীত দৃশ্য পর পর যেন
কল্পনার পটে অঙ্কিত হইয়া আমাকে কোন ভিন্ন জগতে লইয়া গেল।
যে সরল আত্মপরজ্ঞানরহিত, নিস্বার্থচিত্ত লইয়া সংসারক্ষেত্রে প্রথম
উপস্থিত হইয়াছিলাম, সেই চিত্ত কোন যাহকের মিথ্যা আশা ও সুখের
চিত্র দেখাইয়া হরণ করিয়া লইয়া গিয়াছে! তাঁহার সঙ্গে সাক্ষাৎ
লাভ করিয়া যেন মুহূর্ত্তের জন্ত সেই অকপট ভেদবুদ্ধিরহিত বিমল
হৃদয় ফিরিয়া পাইলাম! মুহূর্ত্তের জন্ত আবার মনে হইল, আমি

ব্রাহ্মণ নহি, সেও শূদ্র নহে, আমরা একজাতি, একবর্ণ। সেই শৈশবে যেমন ছিল, এখনও সেইরূপ—বনের ফুল ও পল্লব ভিন্ন আমাদের অণু সম্পত্তি নাই; এবং মাতৃ আঙ্গিনায় বিভোর হইয়া ক্রীড়া করা বাতীত আমাদের অণু কার্য্য নাই।

9. Translate the following passages into English :—

30

(a) তোমার নিকট অনেক দিন পরে চিঠি লিখিতেছি। ভাবিয়া-ছিলাম এবার পূজার ছুটিতে বাড়ী গেলে তোমাদের সঙ্গে দেখা হইবে; কিন্তু সেই সময় আমার এমন অসুখ হইল যে আমি কিছুতেই বাড়ী যাইতে পারিলাম না। তোমরা সকলে ভাল আছ ত? সুকুমার এখন কোথায়? তাহাকে আমার স্নেহ জানাইও। সে একবার কলিকাতায় আসিলে বলিয়া আমাকে লিখিয়াছিল, সে ইচ্ছাটা ছাড়িয়া দিয়াছে কি?

(b) কলিকাতায় নিত্য নূতন খবর। আমরা সদাসর্বদা একটা উত্তেজনার মধ্যে আছি। বিশেষ শীতকালটা ভরিয়াই ত এখানে বায়োস্কোপ, সারকাস্ প্রভৃতি কত রকম আমোদ প্রমোদ! কিন্তু এ সকল সত্ত্বেও আমার মনটা পল্লীগ্রামের মাধুরীতে মুগ্ধ হইয়া আছে; এখানকার খাঁচার কোকিল আমাদের আম বাগানের কোকিলের মত মধুর-কণ্ঠে ডাকিতে পারে কি?

(c) এখানে সেখানকার মত তেমন বান্ধবতাও হয় না। তোমাদের সঙ্গে প্রাণ খুলিয়া যেরূপ আলাপ করিয়া থাকি, এখানকার সঙ্গীদের সঙ্গে তেমনটা হয় না, অনেকটা যেন মৌখিক ভদ্রতা। পল্লীতে গেলে মনে হয় ঠিক নিজের জায়গায় আসিয়াছি, আর এখানে মনে হয় তামাসা দেখিতে আসিয়াছি কয়েক দিন পরেই বাড়ীর জগুই মন ব্যাকুল হয়।

SECOND LANGUAGE.

HINDI.

(For Female Candidates.)

Paper-settlers—{ BABU BAIDYANATH NARAYAN SINHA. M.A.,
B.L. .
BABU RAMANUGRAHA NARAYAN SINHA. M.A.,
B.L.

Examiner—BABU PURANCHAND NAHAR. M.A.

Candidates are required to give their answers in their own words
as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English any two of the following extracts :— 16

(a) कोमलचित कृपालु रघुराई ।
कपि केहि चेतुं धरी निदुराई ॥
सहजबानि सेवक सुखदायक ।
कबहुँ कि मुहिँ सुमिरत रघुनायक ॥
कबहुँ नयन मम शीतल ताता ।
होईहिँ निरखि श्याम सुहु गाता ॥
बचन न आव नयन भरि बारी ।
अहो नाथ मोहिँ निपट विसारी ॥

(b) मातु मोहिँ दीजे ककु चीन्हा ।
जैसे रघुनायक मोहिँ दोन्हा ॥
बूझामणि उतारि तब दयक ।
हर्ष समेत पवनसुत लयक ॥
कहेउ तात तुम मोर प्रणामा ।
सब प्रकार प्रभु पूरण कामा ॥
दीनदयालु बिरद संभारी ।
हरहु नाथ मम संकट भारी ॥

(c) सुनु कपि तोहिँ समान उपकारी ।
नहिँ कोउ सुरनर मुनि तनुधारी ॥

प्रत्युपकार करौं का तोरा ।
 सन्मुख होइ न सकै मन मोरा ॥
 सुनु कपि तोहिँ उच्युत मैं नाहीं ।
 देखेउँ करि विचार मन माहीं ॥
 पुनिपुनि कपिहिँ चितव सुरवाता ।
 लोचन नीर पुलकि अति गाता ॥

Either,

2. (a) Give any one line from the Rāmcharitmānas (Tuisikrit 4
 Rāmāyana) which is used as a proverb or saying.

Or,

Give the derivation of प्रत्युपकार and give two other words in which the same prefix has been used as in this word.

Either,

(b) Give briefly, in simple Hindi, an account of the experiences of Hanumān in Lankā ;

Or,

The heroic deeds of Lakshman during the period he was in the forest.

3. Explain any two of the following in Hindi, with reference to the 14 context :—

(a) रामनाम अंकित मृदु, शोभा वरणि न जाइ ।

नव तुलसी के वंद वहु, देखि हर्ष कपिराइ ॥

(b) कपि करि हृदय विचार, दीन्ह सुदिका डारि तब ।

जनु अशोक अंगार, दीन्ह हर्ष उठि-कर गहेव ॥

(c) रामकाज सब करिहहु, तुम बलबुद्धि निधान ।

आश्रय दे सुरमा चली, हर्षि चले हनुमान ॥

4. Give translations into English of any two of the following extracts :—

(a) उस मारीच ने, मरते समय, श्रीगामचन्द्रजी की आवाज़ में, जो “हा सीता ! हा लक्ष्मण ।” कहा था, उस को सुनकर सीताजी के मन में बड़ी विन्ता हुई । उन्होंने ने समझा कि श्री रामचन्द्रजी राक्षसों के फन्दे में फँस गये हैं । इस लिये संकट पड़ने पर हमको याद किया है । इस तरह सीताजी के मन में तरह तरह के विचार उठने लगे । वे लक्ष्मण से बोलीं—हे लक्ष्मण, जाकर देखो

तो तुम्हारे भाई कैसे हैं ! इस समय हमारा खेजा धड़क रहा है । हम बहुत बेचैन हैं । क्योंकि ये दुःख के वचन तुम्हारे भाई के मुँह से निकले हैं ।

(b) माता कीशला तो चुप रहीं, पर लक्ष्मण को फिर क्रोध आ गया और बोले—भाई ! आप ने जो पिता की इस आज्ञा का भंग करना अधर्म समझा सो ठीक नहीं है । क्या आप ने अभी तक नहीं जाना कि अपने मतलब के लिये आप को बिना अपराध वनवास दिया जाता है । क्या यह कोई धर्म की बात है ? हम ऐसी अन्याय की बात नहीं मानते । तमा कीजिए, आप पिता के वचनों से राज्य करने को उद्यत थे और अब वन जाने को तैयार हैं और इसी को धर्म मानते हैं, ऐसे धर्म को हम तो दूर से ही प्रणाम करते हैं । यह तो धोखा है धर्म नहीं । आप इसे भी धर्म ही कहते हैं ? आप के सिवा और कोई इस बात को धर्म नहीं कह सकता ।

(c) जब श्रीरामचन्द्रजी का पूरा पूरा हाल हनुमानजी को मालूम हो गया तब इन्होंने भी उन से अपना सब हाल कह सुनाया । हनुमानजी ने श्रीरामचन्द्रजी से कहा कि—“महाराज ! आप सुग्रीव से मित्रता कर लीजिए तो वह सीताजी के ढूँढ़ने के लिये बहुत से बन्दर इधर-उधर भेज देंगे, इसी तरह बहुत जल्द सीताजी का पता लग जायगा । और आप बाली को मारकर सुग्रीव की स्त्री को दिला दीजिए । इस तरह दोनों का काम हो जायगा” । हनुमानजी के ऐसे बुद्धिमानों के वचन सुनकर श्री रामचन्द्रजी के भी जी में आ गया कि इस समय सुग्रीव से ज़रूर मित्रता कर लेनी चाहिए । •

Either.

5. (a) Parse any four of the underlined words in questions 1, 3, 8 and 4.

Or,

Construct sentences illustrating the uses of all the *samāsas*, and naming the *samāsas* used.

Or,

Give rules governing the correct usage of ने and को in Hindi, and construct four sentences in illustration of the rules.

(b) Illustrate the use of *any four* of the following phrases, by means of sentences :— 8

नौ दो ग्यारह हुआ, टाट पर बखिया, बात की बात में,
काटो तो लोहू नहीं, आसमान पर चढ़ाना, तूती बोलना, बात
रखना, हार मानना, बाल २ बचना, दिन चढ़े, गुण मानना ।

6. Re-write the following, after making corrections, where necessary :— 11

तुम मेरा कौताब मति कुवो । ऐसे हालत में केसा कहना
चाहिए । मैं ने एक आंब खाया परंतु आंब खटी निकली । मैं ने
वीपीन को मारी ऊस का रोना सुन कर मेरे चैत पर वरी असर
परी । आप कय दीन यहा रहोमे । वीकर्मपूर में एक बहुत अच्छा
कारिग्र रहत है । तुम को मेरे से केसा प्रकनो है । वोह इहा से
कहि चला गया ।

SECOND LANGUAGE.

URDU.

(For Female Candidates.)

Paper-setter—MAULAVI MD. HIDAYAT HOSSAIN.

Examiner—MRS. Z. R. Z. SUHRAWARDY.

Candidates are required to give their answers in their own words
as far as practicable.

*The figures in the margin indicate full marks.

1. Translate *any two* of the following extracts into English :—

گائیں ہمیں عجب بنائیں (a) 10
کیا دودھ کی ندیاں بہائیں
پیدا کئے اونٹ - بیل - گھوڑے
ہر شی کے بنا دئے ہیں جوڑے
روشن آنکھیں بنائیں دو در .
قدرت کی بہار دیکھنے کو

دو ہونٹ دئے کہ منہ سے بولیں
شکر اُس کا کریں زبان کھولیں
بے شک ہے خدا قوی و قادر
ہر شی اس نے بنائی نادر

(b) ہے ہمیشہ مری خدا پہ نظر
رات ہو دن ہو شام ہو کہ سحر
نہ اُجالے میں ہے کسی کا قدر
نہ اندھیرے میں کوئی خوف و خطر
کیونکہ میرا خدا ہے میرے ساتھ

ہو بیابان میں گزر میرا
یا سمندر پہ ہو سفر میرا
دور را جائے مجھ سے گھر میرا
ہے یہ بھی قوی جگر میرا
کیونکہ میرا خدا ہے میرے ساتھ

(c) اتفاقاً ایک پودا، اور گھاس
باغ میں دونو کھڑے ہیں پاس پاس
گھاس کہتی ہے کہ ای میرے رفیق
کیا آنوکھا اس جہان کا ہے طریق
ہے ہماری اور تمہاری ایک ذات
ایک قدرت سے ہے دونوں کی حیات
مٹی اور پانی ہوا اور روشنی
واسطے دونو کے یکساں ہے بنی

تجہ پہ لیکن ہے عنایت کی نظر
پہینک دیتے ہیں مجھے جز کہود کر

6 مفارقت - تحمل - قادر - اشیا :- 2. (a) Re-write with vowel-points:—
کتابت and منصف.

5 - نیک نہاد - :- (b) Write down the meanings of the following:—
مذواتر and مرفہ حال - کذب - حرم سرا

10 (c) Write short sentences to illustrate the use of the following words:—
رشوت مقانی - یتیم - باطل - مالا مال - شوکت - مانند - ناکام -
قسم ازل and بیدادگر - دور اندیش

(d) Fill up the ellipses in the following:—

6

محمود اور اسمعیل دو بیٹے سبکتگین کے . . . مگر محمود
لڑکپن سے یہ حال . . . کہ فوج کشی اور لڑائیوں . . . باپ
کے ساتھ ہی رہتا . . . جب باپ میرا تو یہ نیشاپور . . .
حاکم تھا *

3. Translate one of the following into English:—

12

(a) تمام عمر اس بادشاہ کی فقیرانہ بسر ہوئی - ہمیشہ
عبادت الہی اور پرہیزگاری میں مشغول رہا - اپنے مصارف
کے واسطے سلطنت کے خزانے سے اس نے کبھی ایک حبہ
نہیں لیا - صرف قرآن مجید کی کتابت پر اوقات سر کی -
ایک بار کسی امیر نے اس خیال سے کہ بادشاہ کے ہاتھ
کا لکھا ہوا قرآن ہے معمول سے زیادہ دام دئے - یہ امر سلطان
ناصر الدین کو ناگوار خاطر ہوا - اس لئے آئندہ سے خفیہ طور
پر ہدیہ کرنے کا اہتمام کیا *

(b) وہاں کے باشندوں کی عقل و تمیز کا اندازہ تم اس بات
سے بخوبی کر سکتے ہو کہ وہ سو سے زیادہ گنتی نہیں جانتے -

جن لوگوں کے پاس پانسو ہرنوں کا گلہ ہوتا ہے وہ بڑے دولت مند اور مرفہ حال سمجھے جاتے ہیں۔ وہ اپنے گلے کے کئی غول بناتے ہیں۔ تاکہ شمار میں دقت نہ ہو۔ جن کے پاس سو سے کم ہرن ہوتے ہیں۔ وہ اپنے ہر ایک ہرن کا جدا نام رکھ لیتے ہیں۔ جس طرح آدمیوں کے نام رکھتے ہیں *

(c) پیر مرد نے دعایٰ خیر دیکر کہا۔ صلاح وقت یہ ہے کہ
 • امرا کی تقصیر معاف فرمائے۔ اُن کا رتبہ بڑھائے۔ تاکہ آئندہ سرخرو بنیں اور گذشتہ تقصیرات کی تلافی کریں۔ سلطان نے اس کی صلاح مان لی۔ ملتان پہنچ کر ایک دربار کیا۔ سردارانِ لشکر کو مجتمع کر کے ان کے حال پر مہربانی فرمائی اور اپنا منشا سمجھایا۔ سب نے تلوار کے قبضے پر ہاتھ رکھ کر عہد و پیمان تازہ کیا *

4. (a) Write down the genders of :— دھوبی - دل - چڑیا - بھوک and 5

(b) Give the difference in the significations of :— 6

(i) اسکا ہاتھ کاٹا گیا and اسکا ہاتھ کٹ گیا.

(ii) جاگڑوہ جاتا ہے تو جانے دو and اگڑوہ جائے تو جانے دو

(c) Write down the plural forms of :—

تکلیف and قانون - علم - سلطان - مسجد 5

and the singular forms of :—

احوال and مصائب - رعایا - اصحاب - عقول 5

5. Write in simple prose :— 8

ایامِ مصیبت کے تو کاٹے نہیں کتے

دنِ عیش کے گھڑیوں میں گزر جاتے ہیں کیسے

6. Translate into Urdu.—

12

Some years ago, a little boy, not more than eight years old, was sent on an errand. As he was going home, a lame dog, rough and dirty, came limping after him. A bad boy would have thrown stones at the poor dog; but the little boy of whom I am telling you, had been taught to be gentle and kind. He saw that the dog had been ill used, and that it wanted a friend. So he let it follow him home.

SECOND LANGUAGE.

ORIYA.

(For Female Candidates).

Paper-setters—{ BABU GODABARISA MISRA, M.A.
.. NILKANTA DAS, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate any two of the following into English :—

(a) ଯୁୟୁଷ୍ଠିର ଅତ୍ୟନ୍ତ ଧାର୍ମିକ ଥିବାରୁ ସେ ସର୍ବଦା ମିଥ୍ୟା କହିବାକୁ ତରୁ ଥିଲେ । ଲୋକମାନେ ତାଙ୍କୁ ଓ ତାଙ୍କର ଭ୍ରମମାନଙ୍କୁ ଭକ୍ତି ଓ ସ୍ନେହ କରୁ ଥିଲେ । ତାଙ୍କ ସାଧୁତା ଦେଖି ଶ୍ରୀକୃଷ୍ଣ ତାଙ୍କର ପରମ ବନ୍ଧୁ ହେଲେ । ମହାଭାରତ ଯୁଦ୍ଧରେ ଶ୍ରୀକୃଷ୍ଣ ଅର୍ଜୁନଙ୍କର ରଥଚାଳକ ହୋଇ ଥିବାର ମହାଭାରତରେ ଲେଖା ଅଛି । ଯୁୟୁଷ୍ଠିର ସତ୍ୟବାଦୀ ଓ ଧାର୍ମିକ ଥିବାରୁ ସେ ଏକଗତ କୌରବ ରାଜପୁତ୍ରଙ୍କୁ ପରାସ୍ତ କରି ଯୁଦ୍ଧରେ ଜୟୀ ହେଲେ । କେବଳ ଏତିକି ନୁହେଁ । ଲୋକେ କହିନ୍ତି ସେ ଜୀବତାବସ୍ଥାରେ ସ୍ବର୍ଗକୁ ଯାଇ ଥିଲେ ।

12

(b) କିଛିକାଳ ଆଗେ ଆମଦେଶରେ ବାଲକାମାନେ ପାଠଶାଳାକୁ ଆସୁ ନ ଥିଲେ । ଏବେ କିନ୍ତୁ ଆଉ ସେ କଥା ନାହିଁ । ବାଲକମାନେ ଯେପରି ଶହ ଶହ ହୋଇ ପଢ଼ିବାକୁ ଆସୁ ଅଛନ୍ତି, ବାଲକାମାନେ ସେହିପରି ଆସିବାକୁ ଆରମ୍ଭ କଲେଣି । ତଥାପି ଉଚ୍ଚଶିକ୍ଷା ପାଇବାକୁ

12

ବାଳକମାନେ ଇଚ୍ଛା କରୁ ନାହାନ୍ତି । ସମୁଦାୟ ଓଡ଼ିଶାରେ ଗୋଟିଏ ମାତ୍ର ଉଚ୍ଚ ବାଳକ ବିଦ୍ୟାଳୟ ଅଛି । ଏହାହିଁ ତାହାର ପ୍ରମାଣ । ବାଳକମାନେ ପଢ଼ିବା ନିମନ୍ତେ ଓଡ଼ିଶାରେ ଅଠର ଗୋଟି ଉଚ୍ଚ ଇଂରାଜି ବିଦ୍ୟାଳୟ ଅଛି । ବାଳକବିଦ୍ୟାଳୟର ସଂଖ୍ୟା ଏତେ ଅଳ୍ପ କାହିଁ କି ?

(c) ଦିନକର ସୀତା କୁଟୀର ଦୁଆରେ ବସିଣ ଏକାଟି ହୋଇ, 12

ହରହରଜର ରାଜପୁର କଥା ମନେ ହେଉ ଥିଲେ ଥାଉ ।
ତରତରେ ଧାଇଁ କନକ କୁରଗ ଅଦୃଶ୍ୟ ହୋଇ ଲୁଚିନେ ।
ଝୁଲିତାର ଝୁରୁ ହେମ ଅପଦନ ଭଲ ହେଲେ ଏବେ ମନେ ।
ମୃଗ ଧର ତାଙ୍କୁ ଆଣି ଦେବା ପାଇଁ ପେଶିଲେ ରାମଙ୍ଗୁ ଖରେ ।
ରାମ ଆସିବାର ବାଟ ଝୁଲୁଁ ସୀତା ବସି ଅଛନ୍ତି କୁଟୀରେ ।

2. Sketch briefly the life of Saṅkarāchāryya or of Rāni Durgā-bati in simple Oriya Prose. 10

3. Explain clearly how plant life depends on light. 10

4. Expound the *samāsas* of five of the following :— 10

ଭିକ୍ଷୁ ବେଶଧାରୀ, ସାର୍ବଜନୀନ ମୈତ୍ରୀ ବ୍ରତ, ବହୁଳ ବୃକ୍ଷ ନିକଟସ୍ଥ ନିରକ୍ଷ ପ୍ରଦେଶ, ଗଳିତ ଭୂଷାସୁକୁଳିତ ମେରୁସନ୍ନିହିତ ଅଞ୍ଚଳ, ବର୍ଣ୍ଣଗନ୍ଧ ସ୍ବାଦ ବଞ୍ଚନ, ଅବନଶ୍ଚରକାର୍ତ୍ତିମାଳା ବତୁଷିତ, ବିପ୍ଳବୋପଦ୍ରୁତ ଦେଶ, ମଣିରତ୍ନ ବତୁଷିତ ରାଜପ୍ରାସାଦ ।

5. Change the voice in three of the following :— 6

ମତେ ଦେଉଳ ଦିଶୁ ନାହିଁ । ତମେ କଅଣ ଖାଉଛୁ କି ?
ମୋହାର ତତେ କିଛି ଦିଆ ହେବ ନାହିଁ । ତୋପାଇଁ ପଣ ପକାଇଛି ।
କେତେ କାଟ ମାଧିଲ ?

6. Split up into or explain in simple sentences the following :— 5

ଯେଉଁ ସାହିତ୍ୟ ମାନବର ସାରଭୂତ ଏହି ମନର ଉଚ୍ଚଚନ୍ଦ୍ରାମାନଙ୍କର ବିମଳ ଜ୍ୟୋତିକୁ ଅମ୍ଳାନ ଭାବରେ ସଂରକ୍ଷଣ କରୁଅଛି, ତାହା କିପରି ଉପାଦେୟ, ଏହା ବୁଦ୍ଧିମାନ ବ୍ୟକ୍ତିମାନଙ୍କେ ଅନୁଭବ କରି ପାରନ୍ତି ।

7. Explain the meaning of *seven* of the following:—

7

ଅଭ୍ୟାସ, ତେଜୋହାସ, ଦୁର୍ବାର ଲଳସା, ରକ୍ତାକ୍ତ ଦେହ,
ସାଧାରଣତଃ ଶାସନ, ଶୁଦ୍ଧବିପ୍ଳବ, ମାନସପ୍ରତ୍ୟକ୍ଷ, ଏକମତ୍ୟ, ଅପ୍ରତିହତ
ଅଭ୍ୟାସ, ପର୍ୟ୍ୟବସାୟତା, ଉପସଂହାର ।

8. Write out the sense of the following in simple Oriya, clearing metaphors:—

8

ଯେଉଁ ଦେଶରେ ପୁରୁଷମାନେ ରମଣୀମାନଙ୍କୁ ବଳାସତରଙ୍ଗରେ
ଭସମାନ ଦେଖିବାକୁ ଉତ୍ସୁକ ଥାଆନ୍ତି, ସେ ଦେଶର ଆଶାଭରସା ଲୁପ୍ତ
ହୁଏ । କିନ୍ତୁ ଯେଉଁ ଦେଶର ରମଣୀମାନେ ନିଜେ କୋମଳପ୍ରକୃତି
ଥାଇ ପୁରୁଷଠାରେ ପୌରୁଷର ପୂଜା କରନ୍ତି, ଏବଂ ପୁରୁଷମାନେ ନିଜେ
ବୀରଭାବ ପ୍ରଧାନ ଥାଇ ନାରୀମାନଙ୍କର ସ୍ତ୍ରୀଗୁଣକୁ ସମାଦର କରନ୍ତି,
ସେହି ଦେଶ ଅବଲଲହମେ ଉନ୍ନତମଞ୍ଚ ଆରୋହଣ କରି ମାନବଜାତିର
ଆଦର୍ଶ ସ୍ଥାନୀୟ ହୁଏ ।

9. Translate any two of the following into English:—

20

(a) ନିଉଟନଙ୍କ ପିତା ତାଙ୍କ ପୈତୃକ ଭୂମି କର୍ଷଣ କରି ଜୀବନା
ନିବାହ କରୁଥିଲେ । ଅଳ୍ପ ବୟସରେ ପିତୃହୀନ ହେବାରୁ ନିଉଟନ
ଜନମାଙ୍କ ସମୀପରେ ପ୍ରାଥମିକ ଶିକ୍ଷା ଲାଭ କରିଥିଲେ । ବାର ବର୍ଷ-
ବେଳେ ନିଉଟନ ଏକ ନିକଟବର୍ତ୍ତୀ ନଗରସ୍ଥ ପାଠଶାଳାକୁ ପ୍ରେରଣ
ହେଲେ । ସେଠାରେ ନିଜର ପ୍ରତିଭା ହେତୁ ସମସ୍ତଙ୍କର ପ୍ରିୟ ହୋଇ
ଥିଲେ । ଯେତେବେଳେ ପାଠଶାଳାର ଶ୍ରେଣୀମାନେ ଅବସର ପାଇ
ଖେଳୁ ଥାନ୍ତି, ନିଉଟନ ଅଧ୍ୟୟନରେ ରତ ଥାଆନ୍ତି । ସେ ଏହି
ସମୟରେ ଗୋଟିଏ ଜଳ ଘଟିକା ନିର୍ମାଣ କରିଥିଲେ ।

(b) କାଶୀରେ ଭୁବନେଶ୍ୱର ପରି ସୁବୃହତ୍ ଦେବମନ୍ଦିର ଏବେ ଆଉ
ଦେଖା ଯାଏ ନାହିଁ । ସେ ସମସ୍ତ ବିନଷ୍ଟ ହୋଇଅଛି । ତଥାପି
ପ୍ରଭାତ କାଳରେ ଗଙ୍ଗାବନ୍ଧୁ କାଶୀର ଦୃଶ୍ୟ ଅତି ମନୋହର ।

ଗୋଟିଏ ମାତ୍ର ପ୍ରଶସ୍ତ ଶୁଦ୍ଧପଥ ଅଛି । ତାହା ବନ୍ଦୁକରେ ନଗରର ଅଭ୍ୟନ୍ତରରେ ପ୍ରସାରିତ ରହି ଅଛି । ନଗରର ଏକ ପାର୍ଶ୍ବରେ ଗୋଟିଏ ବନ୍ୟାମନ୍ଦିର ଅଛି । ତାହା ଦେଖିବାକୁ ଅତି ସୁନ୍ଦର । ଏହାର ଚୂଡ଼ା, ସ୍ତମ୍ଭ, ତୋରଣ, ଶିଳ୍ପନ ପ୍ରଭୃତି ଉତ୍କଳ ଉତ୍କଳରେ ପ୍ରଖ୍ୟାତ ।

(୧) ଜଳ ଘଡ଼ରେ ଦର୍ପଣ ପାତ୍ର ଥାଏ । ତନ୍ମଧ୍ୟରୁ ଗୋଟିଏ ଜଳ ପୁଣି, ଅନ୍ୟଟି ଶୂନ୍ୟ । ଏକ ପାତ୍ରରୁ ଅନ୍ୟ ପାତ୍ରକୁ ଗୋଟିଏ ସୂକ୍ଷ୍ମ ଛିଦ୍ର ଥାଏ । ତଦ୍ୱାରା ଏକ ପାତ୍ରର ଜଳ କ୍ରମଶଃ ଅନ୍ୟ ପାତ୍ରରେ ଟୋପା ଟୋପା ହୋଇ ପଡ଼େ । ଛିଦ୍ରର ଆକାର ଅନୁସାରେ ଟୋପା ଗୁଡ଼ିକ ଶୀଘ୍ର ବା ବିଳମ୍ବରେ ପଡ଼େ । କୌଣସି କୌଣସି ଘଡ଼ରେ ସେକେଣ୍ଡକେ ପାଞ୍ଚ ଟୋପା ପର୍ଯ୍ୟନ୍ତ ପଡ଼ି ଥାଏ । କୌଣସି କୌଣସି ଘଡ଼ରେ ମଧ୍ୟ ଦଶ ଟୋପା ପଡ଼ିବାକୁ ମିଳିବ ଲାଗି ଯାଏ ।

SECOND LANGUAGE.

ASSAMESE.

(For Female Candidates).

Paper-seller—BABU LAKSHMINARAYAN BEZBARUA.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate any two of the following passages into English:—

(a) ବଚକର ବିଦ୍ୟା ବୁଦ୍ଧି ଅଳ୍ପମାତ୍ରା ପୁଣି ମାତ୍ରାବାଦୀ ଜୀବକ ବା ହସ୍ତ । 10
ଦେଖିବ ବିଦ୍ୟା ବୁଦ୍ଧିର ଆଦି ଆକ ଅଳ୍ପ, ତେଣୁ ବିଦ୍ୟାମୟ, ବୁଦ୍ଧିମୟ ଆକ ଜ୍ଞାନମୟ ; ଏତେକେ ତେଣୁ ବଚା ବିଷୟ ସେ ମାତ୍ରାମୟ ପୁଣି ତାଙ୍କ ଏନେହି ବୁଦ୍ଧିର ପାରିବ । ନୀତି ଶିକ୍ଷାର ନିମିତ୍ତେ ଚାନ୍ଦକା, ବିଧି ଶିକ୍ଷାର ନିମିତ୍ତେ ମୟ, ବା ଧର୍ମ ଶିକ୍ଷାର ନିମିତ୍ତେ ପତଞ୍ଜଳି ଚର୍ଚ୍ଚା କରିବର କୋନୋ ମକାମ ନାହିଁ ।

(b) পতি-ভক্তিতো মহাবানী ভিকটোবীয়া সতীৰ আদৰ্শ বমণী 10
আছিল। ইংলণ্ডৰ ৰাজপাটত উঠাৰ তিনি বছৰ পাছত, খৃঃ ১৮৪০
চনৰ ১০ ফেব্ৰুৱাৰীত জৰ্মানিৰ অন্তৰ্গত চেকসকোবৰ্গ প্ৰদেশৰ ৰাজ-
কুমাৰ, কোঁৱৰ এলবাৰ্টৰ লগত মহাবানীৰ শুভ বিবাহ সম্পাদন হয়।
তেওঁলোকৰ দাম্পত্যপ্ৰেম জগতৰ অল্পম আৰ্হিৰ বস্তু।

(c) বহুল পথাৰখনি ঘাঁহেৰে শূৱনি, 10
বলিছে ওপৰে তাৰ মুহু সমীৰণ;
ৰাঙলী শ্যামলী দুয়ো ওপৰ তলত
বিস্তাৰিছে আপোনাৰ বিদায় কিৰণ।
হেঁপাহেৰে আছোঁ চাই পচিমৰ পিনে—
কতনো হুৰাশা মোৰ উদিছে মনত,
দেখিছোঁ তাতেই যেন স্বৰ্গীয় মূৰ্তি,
উদিছে ভক্তিৰ ভাৱ মোৰ হৃদয়ত।

2. Tell briefly what you know of চাণক্য and পতঞ্জলি. 2

3. Expound the *samāsas* in the following:— 5

মধু-মিলন, প্ৰাণদগ্ধ, অপায়-অমঙ্গল, অন্নচিন্তা, জীৱন-যুদ্ধ।

4. Give briefly the purport of ধনৰ ব্যৱহাৰ as detailed in your text. 10

5. Join the following sentences to form one connected sentence:— 5

(a) ব্ৰহ্মপুত্ৰৰ পাৰত সেই গছজোপা আছিল।

(b) গছজোপাত ফুলে ফুলে আছিল।

(c) গছজোপাত কপৌ চৰাই এজোৰে বাহ লৈছিল।

(d) বাহটোত দুটি পোৱালি আছিল।

(e) নিষ্ঠুৰ লৰাটোৱে সেই পোৱালি দুটি পাৰি আনিলে।

6. Re-write the following, correcting all errors:— 15

(a) ৱিষ্টম লয়ে ড় লৰ্জ সকলো মজীৰ উপবত। তেওঁৰ মোমায়েক
আছিল একজন জুতা চিলাই কৰা মুচি।

(b) খোৱা আৰু ৰান্ধা-বাঢ়াৰ পানি উতলাই লবা হাণে।

(c) নিজৰ ঘৰৰ ভিতৰত যোৱাৰ আগে গুঠো ধুই ফেলাবা লাগে।

(d) ঘৰৰ চাৰিও কাঁথৰ জঞ্জল কাটি ফেলাই দিলে ভাল হয়।

(e) ঘৰীত এটা বাজিলে তথাপি আমালোকৰ ভাত খুৱা নহলে
যেতিয়া ভাত নাখাওঁ, ভাত নৈত উটুৱাই দে।

7. Give derivations of the following words:— 10

হামৰাও কাটি, অবাচি, বাগীয়াল, কলএহ, পদূলি, সস্তাপ, হল,
কুৰুতীয়া, শলাগ, নীৰোগ।

8. Turn (a) into direct, and (b) into indirect, form of speech :— 6

(a) পাছত হোচেনে কাফ্ৰীজনৰ ভৱিত পৰি কমা প্ৰাৰ্থনা কৰি কবলৈ ধৰিলে যে কাফ্ৰীজনে ইমানখিনি মানুহক নৈত বুৰি মৰাবপৰা উদ্ধাৰ কৰিলে, তেওঁকো যেন অহঙ্কাৰ-নৈবপৰা উদ্ধাৰ কৰে।

(b) মই ছজনক বচালোঁ, যা এতিয়া তই বাকীজনক বচাগৈ হোচেন! তই যিজনী তিকতা মানুহক মোৰ ওচৰত বহি থকা দেখিছ, তেওঁ মোৰ আই হয়। তেঁওৰ চকু আছেন নাই তাকেহে পৰীক্ষা কৰি চলোঁ, দেখিলোঁ তই এতিয়াও কণা।

9. Translate (a), and either (b) or (c), into English :—

(a) ত্ৰায়ৱস্ত মানুহ তজুৰ নিচিনা। তাৰ মনত খুদ পৰিমাণ। 15
প্ৰভেদো ডাঙৰ প্ৰভেদ। সি কোনো কথাৰে সৰু বুলি উলাই নকৰে, বৰং সৰু কথাৰো ডাঙৰ অৰ্থ আছে বুলিহে ভাবে। সেই দেখি ত্ৰায়ৱস্ত মানুহে সৰু বৰ সকলো বকম কথাৰে বিবেচনা কৰি চায়। বহুত মানুহৰ মনৰ ওপৰত ডাঙৰ নামৰ অতুল প্ৰতাপ। সিহঁতৰ বিবেচনাত ডাঙৰ মানুহৰ কথা শিৰোধাৰ্য্য। কিন্তু ত্ৰায়ৱস্ত মানুহৰ বিবেচনা তেনেকুৱা নহয়।

(b) ইয়াৰ পিছত মোৰ বেঞ্চত বহাজনৰ ফালে উভতি চাই দেখিলোঁ, 12
তেওঁৰ হাতত এটা টোপোলা, আৰু সেই টোপোলাৰ পৰা কিবা জুলীয়া গুড়ৰ নিচিনা ওলাই পৰিছে। মই তেওঁক কলোঁ, “চাব, মোৰ কপোৰত যেন সেই জুলীয়া বোৰ নেলাগে।” তেওঁ টোপোলাটো ভালকৈ সামৰি আমাৰে সৈতে কথাবাতী পাতিবলৈ লাগিল।

(c) মই স্মৃন্দৰমতে তৃতীয় শ্ৰেণীৰ গাড়ী এখনত অকলৈ উঠি, নানান 12
আমাৰ দেশী গীত গাই, চাৰিও পিনে প্ৰকৃতিৰ শোভা চাই, কেম্ব্ৰিজ পালোঁগৈ। কেম্ব্ৰিজ ষ্টেশ্যন পোৱাৰ আগৈয়ে তাৰ ঘৰবাৰী গিৰ্জাদি-স্মৃন্দৰ ছুড়াবোৰে যেন মানুহক কৈ দিয়ে “চোৱাঁহি চোৱাঁহি, মই কেনে স্মৃন্দৰ চহৰ।” অথচ কেম্ব্ৰিজ তেনে স্মৃন্দৰ চহৰ নহয়। কেম্ব্ৰিজতকৈ অক্সফোৰ্ড শূৱনি।

ASSAMESE.

(For Female Candidates).

ADDITIONAL PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate one of the two following passages into English :— 10

(a) বাৰ বছৰ কাল নানা দেশ পৰ্যটন কৰি, নানা ক্লেৰ ভুক্তি, পূৰ্বৰ প্ৰতিজ্ঞা অনুসৰি পাণ্ডৱসকলে আৰু এবছৰ অজ্ঞাতবাসত কটাব লগা হ'ল। সেই প্ৰতিজ্ঞাৰ পূৰণ এনেদৰে বন্ধা হৈছিল যে অজ্ঞাতবাসৰ কাল পূৰ্ণ নোহওঁতে, কিবাপৰূপে জনাজাত হলেও, সিবিলাকে ঘূৰিবাৰ বছৰ কাল দেশে দেশে ভ্ৰমিব লগা আছিল; সেই কাৰণে পাণ্ডৱসকলে পত্নী দ্ৰৌপদীৰে সৈতে ছদ্মবেশে বিৰাট ৰজাৰ ঘৰত বিশেষ সাৱধানৰে বেলেগ বেলেগ অনুচৰৰ বৃত্তি লৈ জীৱন যাপন কৰিব লগতে পৰিছিল।

(b) ভাৰতবৰ্ষৰ পাঁচ ভাগৰ এভাগ মানুহৰ গাত, সিহঁত ওপজা দিনৰেপৰা, অশুচি অস্পৃশ্য বুলি ছাপ পৰে। সেই মানুহবোৰৰ জীৱন মলিনতা মাদকতা আদি পাপত অতিবাহিত হ'ব লাগিছে, আৰু সজ জীৱন আৰু ভাল মানুহৰ সমাজৰপৰা সেই মানুহবোৰ সম্পূৰ্ণ বাহিৰত, ভাল মানুহৰ ভাল সমাজৰ সম্পৰ্কলৈ সেইবোৰ একেবাৰেই আহিব নোৱাৰে, সেই দেখি সভ্যতাৰ প্ৰভাৱৰ পৰা সিহঁত বঞ্চিত।

2. (a) Who were the Pandavas, and why were they so styled? 2
(b) State briefly the circumstances under which the Pandavas had to go to exile. 4
(c) What were the names assumed, and offices held, by each of the Pandavas in the court of Virata? 6

3. Explain the following passages :—

(a) এক অংশ মানুহৰ অনন্ত জ্ঞানৰ 6
একে লুটি, একে পাত মাথোঁ জ্যোতিষৰ,
কত সূৰ্য্য অগণন লইছা কোলেতে,
লগে লগে কত গ্ৰহ ভ্ৰমিছে তোমাত,
হুটি এটি উপগ্ৰহ আছে গাইপতি,
তুলনাত ধৰাখনি মাথোঁ কণা এটি।

(b) চঞ্চল মেঘৰ ছায়া সম পুত্ৰ পত্নী জায়া, 6
জীৱন যৌৱন ধন জন।

হইবা সবে এৰাএৰি, জানিবা টাটক খেৰি,
হবাই যেন জাগিলে সপন ॥
আৰ অৰ্থে ব্যৰ্থ যায় হৰ্ষন্ত মনুষ্য কায়,
ইসে ষ্ঠল পৰম অশুখ ।
কৰা আন আশা ভঙ্গ, লই ভকতৰ সঙ্গ,
হয়ো ঝাণ্টে দৈবৰ সমুখ ॥

4. Give equivalents of the following words, in English :—

6

এহ, উপএহ, বামধনু, জোতিষ, জায়া, ঝাণ্টে ।

5. Form short sentences illustrating the use of the following words :—

10

চাটুকাৰ, হতাশন, জোঁট, দোৰাডাঁৰ, অমূৰ্তক, ফুলতী, শিপিনী,
আওভাও, টাংগুটি, বাউল ।

6. Rewrite the following, avoiding all inelegant words, and correcting all errors :—

6

তেৰাই শনৈঃ শনৈঃ ভয়ঙ্কৰ খংদীপ্ত চকুহালেৰে মোক প্ৰতি
দৃষ্টিপাত কৰি গভীৰ শব্দে গোটেই মন্দিৰটো নিনাদিত কৰি বাক্য
লগালে—“এটা ডাঁহৰ পাছতৰি যুগল কিমান শক্ত হলে সি তাৰ
শত্ৰুহন্তৰপৰা পলাই সাৰিবলৈ সমৰ্থৰস্ত হব, মই এতিয়ালি তাকে
ধ্যানিছিলোঁ ।

7. Fill up the ellipses in the following :—

4

(a) বাইছে—জোকাৰিলে নৈ বয় ।

(b) যতে ইচ্ছা—বাট ।

(c) হল গছক সকলোৰে--মাৰে ।

(d) হৰিণাৰ --বৈৰী ।

8. Render the following into idiomatic Assamese :—

10

(a) That beggar does not work, because he is lazy.

(b) I have come to beg your pardon.

(c) Come before the sun sets

(d) He went before eating.

(e) You are to blame.

(f) Blow the fire.

(g) The wind blows now.

(h) Have you boiled the milk ?

(i) The birds fly in the open air.

(j) He sat by the well.

9. Translate any two of the following extracts into English :—

(a) একে উচালে কোনও জগতত উদগতিৰওখ টিওত উঠিব নোৱাৰে ।

15

কোনো কোনো মানুহে কেতিয়াবা স্মৃণটনাৰ গুণত, আনে আৰ্জি ধোৱা

বিভূতিৰ গৰাকী হৈ, সেই বিভূতিৰ বলত ডাঙৰ মাছৰ বোলায়, কিন্তু তেনেকুৱা ঘটনা সংসাৰত অলপহে ঘটে। বিশেষত, পৰে আৰ্জি থোৱা ধনেৰে ডাঙৰ হলে তাত পুৰুষালি নাই; নিজৰ ৱাউসিৰ বলেৰে যি ডাঙৰ হয় সেই পুৰুষহে ধন্ত।

(b) সূৰ্য্যাস্তৰে পদূলিত হেমক দেখি সূৰ্য্যিলে, “তুমি কবপৰা আহিছাঁ?” 15

হেম নিমাত।

সূৰ্য্যাস্তৰে আকৌ কলে “নামাৰ্ত্তা কিয়?”

হেমে বিনীতভাৱে কঁপা মাতেৰে উত্তৰ দিলে, “মোৰ ঘৰ ইয়াতে।”

সূৰ্য্যাস্ত।—“পিছে, ইয়ান কৰিছাঁ কি?”

“হেম আকৌ নিমাত হল; তেওঁৰ গাৰ কঁপনি উঠিল, কলা মুখ আৰু কলা হৈ উঠিল।

সূৰ্য্যাস্ত।—“তুমি এইবাৰ জ্বাই—এ পৰীক্ষা দিছাঁ?”

হেম।—“হয়।”

(c) পুৰণিকালত ভাৰতবৰ্ষৰ তিবোতাবিলাক বীৰতৰ আদৰ্শৰে গঠিত 15
আছিল। কি শাৰীৰিক বলত বোলা, কি মানসিক বুদ্ধিবৃত্তিত বোলা, সকলো বিষয়ত তেওঁবিলাকে নিজৰ অসাধাৰণ প্ৰতিভাৰ চিন দেখুৱাই গৈছে। কোনোৱে মন্ত্ৰীস্বৰূপে ৰাজকাৰ্য্যত পতিক পৰামৰ্শ দিছিল, কোনোৱে যুদ্ধৰ সাজ পিন্ধি পতিৰ কাষত থিয় হৈ শত্ৰুৰ লগত ৰণ কৰিছিল, কোনোৱে পতিৰ হস্তে নিজৰ জীৱনকো বিসৰ্জ্জন দিছিল।

SECOND LANGUAGE.

KHASI.

(For Female Candidates).

Paper-setter—REV. MR. J. C. EVANS.

Examiner—ROY ROWLAND THOMAS, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

- 1 Narrate in Khasi the Story of Ka Nam. 10
2. How are adjectives generally formed in Khasi? Discuss fully the changes which take place when *ba* is dropped from any of the 12

conjunctive particles *uba*, *kaba*, &c., and when adjectives are formed without the prefix *ba*. Illustrate your answer in each case by examples.

3. Give six correlatives and write short sentences illustrative of the use of each. 10

4. Explain *five* of the following with reference to the context:— 13

- (a) Ka lynti rim ka lynti thymmai.
- (b) Ia um khmat um lem.
- (c) Nga ai shi khut
- (d) Nga'n shu iapein aiuh-re-aiuh bad ki Dykhar.
- (e) Nga kein kata ka bthong kynthoi.
- (f) Ka Khohsw bunrw bad u tyrso u la mih ha Kper.

5. Translate into English:—

25

Ka met u briw ka long sriom kum ka kor lane ka bajo, tang ba ka met ka long ka jingthaw kaba kham phylla bad kham maian.

Hapoh ka met u briw don u klong snam, u tor, ki snir, ki thied. ki-jaw, ka snieh, bad kine baroh ki don la ka bynta-bynta ba'n trei na ka bynta ka jingkoit ka met.

Katno kaba korder kane ka jingkoit-jingkhiah ka long! Lada duh ia kane, ka met bad ka mynsiem ki shitom. Haba pang ka met, ka frei ha ka jingmut u briw, haduh ba u'm nang pyrkhat bha shuh. Namarkata, ngi dei ban ialeh katba lah ba'n sumar ia la ka met. Ha ba kitei ki dykhot jong ka met baroh ki iaid beit, ngi ong ba ka met ka koit.

Uwei u briw ha ri Phrans u kuah tip noh tel da kunino u lah ba'n ioh ka jingsuk, bad spah, bad bor. Ki la iathuh ha u ba ha kawei ka phud wah ha ki lun Pyrenis u don u'kain stem, te lada u'n tang shu ioh ia uta, ka spah ruh u'n ioh, ka bor ruh u'n ioh. Ia uta u'kain stem dei ba'n kem ha ka jar ba la thain da u sniuh uba jan eh ia ka jabieng, bad dei ba'n wieh ia uta ha ka um se'p bad ka snam. Uta u briw u la leit bran sha kata ka phud wah, hangta u la wad u la it, bad shisha u la iohi ia uta u'kain stem. Bad miet bad sngi u la beh ia u; ia ka riat ia ka ram u la hiar, ia ka thiop ia ka at u la kiw, u la phrung ia ka byniap, u la rung ia ka khlaw ia ka bytap: la kad sa ki jain, la tar sa u shiah ia ka met; la katta ruh u ia beh iap hi ia uta u'kain stem.

6. Translate into Khasi:—

15

(a) Wherefore is there a price in the hand of a fool to get wisdom, seeing he hath no heart to it?

(b) Excellent speech becometh not a fool: much less do lying lips a prince.

(c) A man hath joy by the answer of his mouth: and a word spoken in due season, how good is it!

(d) He that is surety for a stranger shall smart for it: and he that hateth suretyship is sure.

(e) Yet a little sleep, a little slumber, a little folding of the hands to sleep.

(f) So shall thy poverty come as one that travelleth, and thy want as an armed man.

(g) Look not thou upon the wine when it is red, when it giveth his colour in the cup, when it moveth itself aright.

(h) Remove not the ancient landmarks; neither oppress the afflicted in the gate.

7. Mention as many as you can of the characteristics of the virtuous woman as set forth in the text. 15

BURMESE.

(For Female Candidates).

Examiner—MAUNG KO KO GYI.

The figures in the margin indicate full marks.

1. Translate into Burmese any two of the following :—

40

(a) The most common service which the higher animals perform for each other is the warning each other of danger by means of the united senses of all. Every sportsman knows how difficult it is to approach animals in a herd or troop. Wild horses and cattle do not make any danger-signal; but the attitude of any one, who first discovers an enemy, warns the others. Rabbits stamp loudly on the ground with their hind-feet as a signal: sheep and chamois do the same, but with their fore-feet, uttering likewise a whistle. Many birds and some mammals post sentinels, which in the case of seals are said generally to be the females.

(b) The true metal of a golden deed is self-devotion. Selfishness is the dross and alloy that gives the unsound ring to many an act that has been called glorious. And on the other hand it is not only the valour which meets a thousand enemies upon the battlefield, or scales the walls in a forlorn hope, that is of true gold. It may be, but often it is mere greed of fame, fear of shame, or lust of plunder. No, it is the spirit that gives itself for others—the temper that for the sake of religion, of country, of duty, of kindred—nay of pity even to a stranger—will dare all things, risk all things, endure all things, meet death in one moment, or wear life away in slow suffering.

(c) In the battle of Zutphen, fought in the cause of liberty against the tyrant Philip of Spain, Sir Philip Sidney displayed the most undaunted and enterprising courage. He had two horses killed under him, and, whilst mounting a third, was wounded by a musket-shot out of the trenches, which broke the bone of his thigh. He had to walk about a mile to the camp; and being faint with loss of blood and parched with thirst, he called for drink, which was instantly brought him; but as he was putting the vessel to his mouth, a poor wounded soldier, who happened to be carried by him at that instant, looked at it with wistful eyes. The gallant and generous Sidney took the bottle from his mouth without drinking, and handing it to the other, said: "Thy necessity is yet greater than mine."

2. Form sentences to illustrate the use of the following :—

20

အကန့်အကွက်။ ကြိုးကြားကြိုးကြား။ ယေဝဉ်တောင်
ကျေး။ ဝိတ်ပါဂိုယ်ရောက်။ ဆွေအားမျိုးအင်။ ရိုးရိုးရွရွ။
ပဲ့တင်ထပ်။ ယူယူငှာငှာ။ မထောင်းတာ။ ချိမ်းသက်ရန်
ထိုင်။

3. Write an essay in Burmese on the following subject :—

40

Punctuality.

- (a) The habit of punctuality.
- (b) Should be taught to children while at school.
- (c) An unpunctual man neither liked nor trusted.
- (d) Punctuality essential to success in life.

BURMESE.

(For Female Candidates).

ADDITIONAL PAPER.

Examiner—MAUNG KO KO GYI.

The figures in the margin indicate full marks.

1. Translate into Burmese any two of the following :—

40

(a) An old farmer called his three idle sons around him when on his death-bed to impart to them an important secret. "My sons," said he, "a great treasure lies hid in the estate which I am about to leave to you." The old man gasped. "Where is it hid?" exclaimed the sons in a breath. "I am about to tell you," said the old man; "You will have to dig for it—" but his breath failed him before he could impart the weighty secret; and he died. Forthwith the sons set to work with spade and mattock upon the long neglected fields, and they turned up every sod and clod upon the estate. They discovered no treasure, but they learnt to work; and when the fields were sown, and the harvests came, lo! the yield was prodigious, in consequence of the thorough tillage which they had undergone.

(b) At the entrance of a wood a short distance from us we saw a fire round which a party of the inhabitants was assembled. We repaired thither in order to rest ourselves till the morning. While we were seated near this fire, one of the bystanders related that late in the afternoon he had seen a vessel in the open sea driven towards the island by the current, that the night had hidden it from his view, that two hours after sunset he had heard the firing of signal-guns of distress, but that the surf was too high to enable them to launch a boat to go off to her, that a short time after he perceived the glimmering of the watch lights on board the vessel which he feared by its having approached so near the coast had steered between the mainland and the little island of Amber, and that if this were the case, of which however he would not take upon himself to be certain, the ship he thought was in very great danger.

(c) In education the thorough mastery of the elementary subjects is the prevention of what cannot be cured afterwards. When prevention is taken into account accidents will be averted, deaths delayed, sickness almost unknown. Animals and plants, especially when wild, show us how to prepare for the future; we see both laying up stores and preparing for hostile attacks. Thus in everything care is neces

sary, and those who begin any affair carelessly are almost always brought to a sudden standstill. The need of care shows that there has been thoughtlessness somewhere, and we are reminded of the quotation "Evil is wrought by want of thought as well as by want of heart," and it is evils of this kind that are most numerous and need most trouble in curing.

2. Write sentences using the following expressions:—

20

မိရိုးဘာသာ။ ထီးရိုးနန်းစဉ်။ ရပ်ဆွေရပ်မျိုး။ ထောကြို
တောင်ကြပေး။ သားစဉ်မြေးဆက်။ တိမ်းတိတ်မ်းပါး။
တဝိတ်တဒေသ။ ရွပ်ရွပ်ချုံ့ချုံ့။ သက်စွန့်ကြိုးပန်း။ မနေ
မနား။

3. Write an essay in Burmese on *Idleness*—

40

- (a) The father of other evils.
- (b) An idle man not only makes no progress, but he must become worse.
- (c) An idle man cannot be happy. (Why?)
- (d) Those who are not obliged to work for their living are less fortunate than those who have to earn their livelihood.

BENGALI COMPOSITION.

Paper-setters—{ HON. JUSTICE SIR ASUTOSH MUKHERJEE,
KT., C.S.I., M.A., D.L.
RAI SAHEB DINESCHANDRA SEN, B.A.
PANDIT RAJENDRANATH VIDYABHUSHAN.

Head Examiner—RAI SAHEB DINESCHANDRA SEN, B.A.

{ BABU KUMADINIKANTA GANGULI, B.A.
BABU ANILCHANDRA MUKHERJEE, M.A.
BABU HEMADAKANTA CHAUDHURI, M.A.
BABU KUMUDRANJAN MALLIK, B.A.
BABU BALAILAL DATTA, B.A.
BABU PYARIMOHAN BANERJEE, B.A.
BABU MANMATHANATH MUSTAPHI.
BABU PRANSANKAR SENGUPTA, M.A., B.L.
BABU JAJNESWAR BANERJEE.
BABU KALIPADA MUKERJEE.
BABU RANENDRANATH GUPTA. KAVIRATNA.
BABU JYOTISCHANDRA CHATTERJEE.
BABU NABAKRISHNA BHATTACHARYYA.
BABU MUNINDRAPRASAD SARBADHIKARI.
RAI SAHEB HARANCHANDRA RAKSHIT.
BABU RASAMAY LAHA.
Examiners—{ BABU HARANATH BASU.
BABU JALADHAR SEN.
BABU JATINDRAMOHAN RAY.
BABU BASANTARANJAN RAY.
BABU NABAKANTA GUHA.
BABU MANILAL GANGULI.
MRS. HEMLATA SARKAR.
MAULAVI ABDUL KARIM.
MAULAVI ABDUR RAHIM.
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BABU KALIDAS CHAUDHURI, B.A.
BABU MANMATHANATH GHOSH, M.A.
BABU DEBKUMAR RAYCHAUDHURI.
BABU UMAPADA RAY.
BABU AKSHAYKUMAR BARAL.
BABU BHABASINDHU DATTA.
BABU HEMCHANDRA RAY.
BABU JATINDRAMOHAN BAGCHI, B.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Translate *any two* of the following extracts into Bengali :—

(a) The wife of a rich man fell sick : and when she felt that her end was near, she called her only daughter to her bedside, and said, 'Always be a good girl and I will look down from heaven and watch over you.' Soon afterwards she shut her eyes and died, and was buried in the garden ; and the little girl went every day to her grave, and wept, and was always good and kind to all about her. And the snow spread a beautiful white covering over the grave, but by the time the sun had melted it again, her father had married another wife. 20

(b) A merchant, who had three daughters, was setting out upon a journey ; but before he went he asked each daughter what gift he should bring for her. The eldest wished for pearls, the second for jewels ; but the third said, 'Dear father, bring me a rose.' Now it was no easy task to find a rose, it was the middle of winter ; yet as she was the fairest daughter, and was very fond of flowers, her father said he would try what he could do. 20

(c) 'Dear children,' said a poor man to his four sons, 'I have nothing to give you ; you must go out into the world and try your luck. Begin by learning some trade, and see how you can get on. So the four brothers took their walking-sticks in their hands and their little bundles on their shoulders, and, after bidding their father good-bye, went all out at the gate together. When they had got on some way they came to four crossways, each leading to a different country. 20

2. Re-write the following extract, correcting all errors :—

8

তাহার সংগে কথা বলিলেই বুঝিতে পারিবে, সে অতি পাপিষ্ট ; সে তাহার বৃথ্য পিতামাতার প্রতি যেকুপ ব্যবহার করে তাহা অতি নিচ ; তাহার বন্ধুগণেরা তাহার প্রতি অনুরোধ দিয়া থাকে, কারণ সে তাহাদিগকে অশান্ত করে ও কটু বাক্য বলে ।

3. Fill up the ellipses in the following passage :—

6

সে যতই ক্রুদ্ধ হইতে লাগিল, আমি——তাহাকে মিষ্ট কথা——লাগিলাম । কিন্তু কিছুতেই——শাস্ত করিতে পারিলাম না । বারংবার——করিয়াও যখন বিফল হইলাম, তখন আমিও রাগিয়া উঠিলাম । আশ্চর্যের——এই যে আমার রাগ দেখিয়া সে——পাইল, তাহার স্বর নামিয়া গেল ।

4. Form sentences to illustrate the use of নিবন্ধন, বাহুল্য, বিপরীত, and ঐকান্তিক, and also to show the difference in meaning between বীণা—বিনা and হত—রীতি, 6

Either,

5. Write an essay on *any* of the following subjects :—

40

(a) The value of time.

(b) Honesty is the best policy.

Or,

Give an account of a journey that you may have undertaken by boat, steamer, or railway. 40

HINDI COMPOSITION.

Paper setters—{ BABU RADHAKRISHNA JHA, M.A.
BABU RAJENDRAPRASAD, M.A.

Examiners—{ BABU SIBNARAYAN LALA.
BABU BRAJAMOHAN THAKUR, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

I. Translate into Hindi *any two* of the following :—

(a) *The Yaksha*.—By what, O king—birth, behaviour, study, or . 20
learning—doth a person become a Brāhmana ?

Yudhisthira.—Listen, O Yaksha ! It is neither birth nor study nor learning that is the cause of Brāhmanhood. Without doubt it is behaviour that constitutes it. One's behaviour should always be well guarded, especially by a Brāhmana. He who maintains his conduct unimpaired is never impaired himself. He, however, whose conduct is lost, is lost himself. Professors and pupils, if addicted to wicked habits, are to be regarded as illiterate wretches. He only is learned who performs his religious duties. He even that has studied the four Vedas is to be regarded as a Sudra, & his conduct be not correct.

The Yaksha.—Who is truly happy ? What is most wonderful ?

Yudhisthira.—A man who cooks in his own house scanty vegetables on the fifth or the sixth day, but who is not in debt and who stirs not from home, is truly happy. Day after day countless beings are going to the abode of Yama, yet those that remain behind believe themselves to be immortal. And what can be more wonderful than this ?

(b) And Satyavān sweetly said unto Sāvitrī, ' Behold these rivers 20
of sacred currents and these excellent trees decked with flowers ! ' But the faultless Sāvitrī continued to watch her lord in all his moods, and recollecting the words of the Sage, she considered her husband as already dead.

The powerful Satyavān then, accompanied by his wife, plucked fruits and filled his wallet with them. And he then began to fell branches of trees. And as he was hewing them, he began to perspire. And in consequence of that exercise his head began to ache. And afflicted with toil he approached his beloved wife, and addressed her, saying, ' O Sāvitrī, owing to this hard exercise my head aches, and my limbs and my heart also are afflicted sorely ! I think myself unwell. I feel as if my head was being pierced with numerous darts. Therefore, O auspicious lady, I wish to sleep, for I have not the power to stand. '

(c) Some of you have heard, no doubt, of the wise King Ulysses, 20
and how he went to the siege of Troy, and how, after that famous city was taken and burned, he spent ten long years in trying to get back again to his own little kingdom of Ithaca. At one time, in the course of this weary voyage, he arrived at an island that looked very green and pleasant, but the name of which was unknown to him. For only a little while before he came thither he had met with a terrible hurricane, or rather a great many hurricanes at once, which drove

his fleet of vessels into a strange part of the sea, where neither himself nor any of his mariners had ever sailed. This misfortune was entirely owing to a foolish curiosity of his shipmates, who, while Ulysses lay asleep, had untied some very bulky leathern bags in which they supposed some valuable treasure to be concealed. But in each of these stout bags King Æolus, the ruler of the winds, had tied up a tempest, and had given it to Ulysses to keep, in order that he might be sure of a favourable passage homeward to Ithaca.

2. Re-write the following, correcting errors :—

5

मैं ने सादर पूर्वक उसको भरोसा दिलवाया । मैं धैर्य नहीं
हुआ । आये हुये अनिवार को वे सब अकेले जायेंगे । अब सोहन
यौवन हो गया है । क्यों प्रण भङ्गन करते हो ।

3. Convert the following complex sentences into compound, and *vice versa* :—

5

यदि उसे पैसा दो तो वह तुम्हें धनवाद देगा । मैं ने
कुछ पेड़ लगाये थे वे अब फलते हैं । आगरे में जो ताजमहल है
उसे शाहजहाँ ने बनवाया था । वह देखने में तो भला मालूम
पड़ता है परन्तु सबसुच में बड़ा खोटा है । वह दरिद्र होकर भी
उदार है ।

4. Expand the central idea of the following in Hindi :—

10

“निज भाषा उन्नति अहै सब उन्नति को मूल ।

बिन निज भाषा ज्ञान के मिटत न हिय को शूल” ॥

5. Write an essay on *any one* of the following in Hindi :—

40

- (a) ‘Town life and country life—the better of the two.’
- (b) Describe any railway journey that you have performed.
- (c) Write a letter to your younger brother, advising him to take care of both health and study.

URDU COMPOSITION.

Paper-setters— { KHAN BAHADUR MAULAVI MD. IBRAHIM,
B.A.
MAULAVI MD. MUSTAPHA KHAN, M.A., B.L.

Head Examiner—MR. S. KHUDA BUKHSH. M.A., B.C.L.

Examiners— MAULAVI MD. ABDUL HAMID.
MAULAVI MD. YUNUS.
MAULAVI ABDUL HADI.
MAULAVI A. M. MD. WAZI.
MAULAVI S. M. MASIH.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

I. Translate into Urdu *any two* of the following passages:—

(a) He examined the jar on all sides, he shook it to see if it would 20
rattle. But he heard nothing, and so, judging from the impression
of the seal and the lid, he thought there must be something precious
inside. To find out, he took his knife, and with a little trouble he
opened it. He turned it upside down, but nothing came out, which
surprised him very much. He set it in front of him, and whilst he
was looking at it attentively such a thick smoke came out that he
had to step back a pace or two. This smoke rose up to the clouds,
and stretching over the sea and the shore, formed a thick mist, which
caused the fisherman much astonishment. When all the smoke was
out of the jar it gathered itself together, and became a thick mass in
which appeared a genius, twice as large as the largest giant. When
he saw such a terrible-looking monster, the fisherman would like to
have run away, but he trembled so with fright that he could not
move a step.

(b) A cobbler, unable to make a living by his trade, rendered des- 20
perate by poverty, began to practise medicine in a town in which he
was not known. He sold a drug, pretending that it was an antidote
to all poisons, and obtained a great name for himself by long-winded
advertisements. He happened to fall sick himself of a serious illness,
on which the Governor of the town determined to test his skill. For
this purpose he called for a cup, and while filling it with water pre-
tended to mix poison with the cobbler's antidote, and commanded
him to drink it on the promise of a reward. The cobbler, under the
fear of death, confessed that he had no knowledge of medicine, and
was only made famous by the stupid clamours of the crowd. The
Governor called a public assembly, and thus addressed the citizens:
'Of what folly have you been guilty? You have not hesitated to
entrust your heads to a man whom no one could employ to make even
the shoes for their feet.'

(c) Dear Isaac,—It grieves me very much that you again request 20
me to send you a sum of money that it is utterly out of my power to
afford you. You are fully aware of the sacrifices I am obliged to
make in order to pay your school bills and to keep you clothed as

well as your companions. I do not wish to deprive you of these advantages, and am willing to some personal privations in order that you may have a good education, but when you indulge in unnecessary expenses I feel it my duty to remonstrate with you. Your little brothers will naturally look for the same advantages that you enjoy, and the closest economy will not more than enable me to educate them. Justice to them compels me to refuse your unreasonable requests in future, and I hope that your own affection and good sense will prevent you again making such a heavy demand as your last on my slender purse.

2. Form sentences to illustrate the use of the following idioms:— 8

* زهر آگل دالنا - جوتیان چخانا - سر چڑھنا - بہانجی مارنا

3. Compose a letter to your guardian about the progress you are making in your studies. 12

4. Write an essay in Urdu on one of the following subjects:— 40

- (a) A village scenery.
- (b) A football match.
- (c) A bazaar in an Indian town or village.
- (d) A journey by boat or steamer.

ASSAMESE COMPOSITION.

Paper-setters—{ SRIJUT NABINCHANDRA BARDOLAI, B.A.
 ,, PADMANATH BARUYA, B.A.

Examiner—SRIJUT LAKSHMIKANTA SARMA, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate any two of the following passages into Assamese:—

(a) A gnat came and said to a lion, 'I do not the least fear you, nor are you stronger than I am.' For in what does your strength consist? You can scratch with your claws, and bite with your teeth—so can a woman in her quarrels.—I repeat that I am altogether more powerful than you; and if you doubt it, let us fight and see who will conquer.' The gnat having sounded his horn, fastened itself upon the lion, and stung him on the nostrils and the parts of the face devoid of hair. The lion, trying to crush him, tore himself with his claws, until he punished himself severely. The gnat thus prevailed over the lion, and, buzzing about in a song of triumph, flew away. 20

(b) Two soldiers travelling together were set upon by a robber. The one fled away; the other stood his ground, and defended himself with his stout right arm. The robber being slain, the timid companion runs up and draws his sword, and then, throwing back his travelling cloak, says, 'I'll at him, and I'll take care he shall learn whom he has attacked.' On this, he who had fought with the robber made answer, 'I only wish that you had helped me just now, even if it had been only with those words, for I should have been the more 20

encouraged, believing them to be true ; but now put up your sword in its sheath and hold your equally useless tongue till you can deceive others who do not know you.'

(c) A farmer's daughter was carrying her pail of milk from the field to the farm-house, when she fell a-musing. 'The money for which this milk will be sold, will buy at least three hundred eggs. The eggs allowing for all mishaps, will produce two hundred and fifty chickens. The chickens will become ready for the market when poultry will fetch the highest price ; so that by the end of the year I shall have money enough to buy a new gown. In this dress I will go to the Christmas dances, when all the young fellows will propose to me, but I will toss my head, and refuse them every one.' At this moment she tossed her head in unison with her thoughts, when down fell the milk-pail to the ground, and all her imaginary schemes perished in a moment.

2. Render into modern Assamese :—

4

(a) হে বালক সব দেখা কেনে বম্য স্থান যাও সকল কেলি কৰিতে পাৰি।

(b) তাক দেখি লোক সব নষ্ট-দৃষ্টি হৈয়া প্ৰণাম কৰি স্বৰ্ঘ্য আসন্ত বুলি কুণ্ঠিত কহিল।

3. Construct short sentences showing the use of the following words and phrases :—

10

(a) হাম্বাও কাঢ়িলে ; (b) আহিলা ; (c) বাজত বৰচুৰিয়াৰ ফেৰ, ভিতৰত ঢকুৱাৰ বেৰ ; (d) লয়-লাস ; (e) জীয়াতু।

4. Explain the idea contained in the following passage and state it shortly and succinctly :—

6

মহৎ লোকৰ বাঞ্ছাৰ দিক্ এটা, দ্বিতীয় নাই। তেওঁ লোকৰ ইচ্ছা, বাঞ্ছা, কামনা, অভিপ্ৰায় সকলো কেৱল পৰোপকাৰমুখে বহমান।

5. Write an essay in Assamese on any one of the following subjects :—

40

(a) একাগ্ৰতা।

(b) মৰমৰ আই।

(c) টোপনি।

(d) ন বছৰৰ নতুন দিনত,

নুপুজি মাৰাক হেৰা,

স্বৰ্গৰো অধিক জনম ভূমিক

কৰিবা নে বিহ-ছেৰা ?

ORIYA COMPOSITION.

Paper-setters—{ BABU ARTABALLABH MAHANTI, M.A.
BABU KASINATH DAS, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate *any two* of the following passages into Oriya :—

40

(a) Once upon a time four Brahmins were going on a journey when they met a soldier, who cried out 'Victory to my lord!' All four replied with a blessing, and then quarrelled amongst themselves as to which of the four had been saluted by the soldier. Accordingly they ran back and put the question to the soldier, who replied that his salutation was intended for the greatest fool of the four. The four Brahmins next quarrelled as to which of them was the greatest fool. Accordingly they proceeded to a neighbouring village and put the question to the elderly persons who were assembled there in a Dharmashala. The four persons, being asked, narrated their stories in turn and excited laughter of the people assembled.

(b) In a season of great famine, a young boy, very poor, named Paul, came down from the mountains and went into the neighbouring village to ask alms at the doors of the rich. Peter, the son of a rich man, was sitting before his door, holding in his hand a big piece of bread. 'Give me a bit of that bread', said poor Paul, 'I am very hungry.' But Peter answered him rudely, 'Go away, I have no bread to give you.' A year after Peter went up into the mountains in search of a missing goat and at last saw the poor Paul sitting under the shade of a tree and watching his sheep. A pitcher of water was at his side. 'Give me to drink,' said Peter, 'I am very thirsty.' Paul gave him water to drink and said, 'I have not a heart so hard as to refuse you a little water.' At this Peter was much ashamed and begged pardon of the poor little shepherd.

(c) If a king, or a minister, or a brāhmana, or a householder, or a townsman, or a villager, or a rich man, or a trader, sends through a servant the price of a set of robes for a certain monk, and if the servant going to the monk gently says: 'O Sir, the price of a set of robes has been sent through me to you, graciously accept it,' then the monk should answer the servant thus: 'O friend, it is not proper for us to accept the price of robes, but we can accept a set of robes.' If a monk, while he is on a journey, gets some wool, he should accept it if he likes; and having accepted it he should carry it in his own hand for a distance of three miles. If he carries it farther he commits a sin. If a monk receives gold or silver he commits a sin.

2. Fill up the ellipses with appropriate words in the following :—

5

ସଂସାରରେ — ଯାହା ନିର୍ବାହ — ଗଲେ ମାନବ — — ଅନେକ
— ବହୁ ଅଭିକ୍ରମ — ପଡ଼େ । ମାନବ — ଏକ — ଉଦ୍ଦେଶ୍ୟ ଅଛି ।
ସେହି — ପ୍ରତି ଯଦ୍ୟପି ସେ ମନଃସ୍ଥାପନ — ନଦିଏ, ତେବେ ତାହାର
ସମସ୍ତ — ବୃଥା ।

3. Form sentences, using adjectives from the following words:— 5

ବୃଷି, କ୍ଷୟ, ଶକ୍ତି, ଅଭ୍ୟନ୍ତର, ବର୍ଷ, ଜାତି, କଳ୍ପନା, କୁଳ,
ବିଦେଶୀ, ପିତୃ ।

4. Re-write the following in simple language:— 10

ସାଧୁ ଅଥବା ସଂସ୍କୃତ ଶବ୍ଦବହୁଳ ଭାଷାର ଏକ ବିଶେଷ ଉପକାରତା
ଅଛି । ସେ ଉପକାରତା ସମଗ୍ର ଭାରତବର୍ଷର କୌଣସି ବଶିଷ୍ଠ ପ୍ରଦେଶର
ନୁହେଁ । ଉତ୍ତର ଏବଂ ପାଶ୍ଚାତ୍ୟ ଭାରତବର୍ଷର ଭାଷା ଆର୍ଯ୍ୟଭାଷା—
ସଂସ୍କୃତ ମୂଳକ । ସେ ସମସ୍ତ ଭାଷା ପ୍ରାକୃତର ରୂପାନ୍ତର । ବାହ୍ୟତଃ
ହିନ୍ଦି, ବଙ୍ଗଳା ଓ ଓଡ଼ିଆ ଭାଷାମାନେ ପୃଥକ୍ ପୃଥକ୍ ରୂପେ ପ୍ରତ୍ୟୟମାନ
ହୁଅନ୍ତି କିନ୍ତୁ ସେମାନଙ୍କର ମୌଳିକ ଉପାଦାନ ଅଭିନ୍ନ । ସଂସ୍କୃତ
ମୂଳକ ଶବ୍ଦ ଅଧିକ ପରମ୍ପରାରେ ବ୍ୟବହୃତ ହେଲେ ପ୍ରାଦେଶିକ ଭାଷା
ସମୂହର ଏକତ୍ୱ ସମ୍ପାଦିତ ହୋଇ ପାରିବ । ଏହା ଅତ୍ୟଧିକ ଧ୍ୟେୟ
ଓ ସମୟସାପେକ୍ଷ ।

5. Write an essay on one of the following subjects:— 40

(a) ଦେବୀ ଦୀର୍ଘାୟାକୁ ହରି

କରତା ଅଟନ୍ତି ସବୁରି ।

(b) ହୋଟ ଚାଷ ।

(c) ଗୁରୁ ଭକ୍ତି ।

(d) ନାଗରିକ ଜୀବନର ଉପକାରତା ।

(e) କୌଣସି ଉତ୍କଳୀୟ ମହାତ୍ମାଙ୍କର ଜୀବନ ଚିତ୍ର ।

(f) ଗ୍ରୀଷ୍ମ କାଳୀନ ଗ୍ରୀଷ୍ମାଂଶୋଭା ।

BURMESE COMPOSITION.

Paper-setters { MAUNG WE LIN, ESQ.
MAUNG TIN, ESQ., M.A.

Examiners—{ MAUNG KYAW DIN, ESQ.
MAUNG BA, ESQ.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate the following into Burmese:—

40

I walked for some distance at first, partly because the ground was very stony, and partly because I thought a lion might suddenly bound out of some likely patches in front of the beaters; but after having gone about six miles in this way without adventure of any kind, I decided to mount again. At this time the beaters were in line about a hundred yards behind me, shouting and halloing with all their might as they advanced through the scrub and undergrowth, while I rode well to the flank so as to be ready for any emergency. Just as the men got up to a rather thicker piece of jungle than usual, I fancied I saw a movement among the bushes, and pulled up suddenly to watch the spot, but did not dismount. The next moment out bounded a lioness, quickly followed by another. Throwing myself off my pony, I seized my rifle to get a shot at the second lioness as she galloped past, and was just about to pull the trigger, when, to my utter amazement, out sprang a huge black-maned lion, making all haste after his mates. Before he could reach the farther thicket, however, I fired, and had the satisfaction of hearing the deep growl that tells of a serious hit.

2. Correct the errors in spelling, if any, in the following passage:—

6

ထိုကားကိုကြားလျှင်။ ဟိမဝန္တာ၌ဘေးရန်ကိုပြု၍
ခြေယာ်ချိန်းထိုသောကြောင့်။ ဤသို့ဆိုပြန်၏။ ငါ့ချွေးမမိ၍။
ငါဆိုသောစကားကိုသင်နာယူလေ။ တောအရပ်ဟူသ
ည့်ကား။ ဤနန်းပြတ်သန်မှာကဲ့သို့မဟုတ်။ ပေါက်ဖတ်
ကင်းသန်း၌မှတ်ချင်ယင်ပြားတို့သည်များစွာရှိကုန်၏။
ဆိုသတငါတို့၏ကိုက်ခဲခြင်းဆင်းရဲကိုအလွန်သီးခန့်နိုင်
ခဲ၏။ ထိုသို့သောဆင်းရဲကိုသင်သီးခန့်နိုင်ပြစ်လတံ့။
ဤမှတပါးလည်းလူတို့၏ဘေးရန်ကိုပြုတတ်လျက်။ မြစ်
နားအိုင်နားကိုအငြိပြု၍နေကုန်သောစကြီးမွေတို့သည်

ကား။ အသိတ်မရှိသော်လည်းကြီးသောခွန်းအားရှိသော
ကြောင့်။ မိမိအနီးသို့ရောက်လာသောလူသမင်ပိုင်ဆပ်
သစာဝါထို့ကိုအခွေဖြင့်ပတ်ယပ်၍။ အလိုရှိထိုင်းနှိပ်စက်
တတ်ကုန်၏။

3. Combine the following sentences :—

8

- (a) အိမ်ရှေ့မင်းသည်လည်းတလုံးမျှသာဆွတ်ချူစား၏။
- (b) မင်းကြီးကဲ့သို့ပင်တသုံးမျှသာဆွတ်ချူစား၏။
- (c) ဆွတ်ချူစားပြီး၍နောက်တော်သို့လိုက်ရလေ၏။
- (d) မှူးမတ်ပရိသတ်ဗိုလ်မြေတို့သည်လည်းဆွတ်ချူပင်
ခံတ်၍စားကြလေကုန်၏။
- (e) ဤသရက်သီးကိုအံ့ရှင်တို့အားအဦးဆက်၍ချီးပြီဟု။
ဆွတ်ချူပင်ခံတ်၍စားကြလေကုန်၏။
- (f) အလိုရှိထိုင်းဆွတ်ချူပင်ခံတ်၍စားကြလေကုန်၏။
- (g) တတ်အားသမျှဆွတ်ချူပင်ခံတ်၍စားကြလေကုန်၏။

4. Frame sentences to illustrate the use of three of the following expressions :—

6

- (a) ဝတ်ကုန်ဝတ်ကြံ။
- (b) လုံ့လကြိုးကတ်။
- (c) ရွက်ကြမ်းရေချို။
- (d) မြိုးမြီးမြက်မြက်။

5. Write an essay in Burmese on *thrift*.

40

By thrift we thrive.—The thrifty man, the spendthrift, and the miser. The first one alone understands the true worth of money.

How to be thrifty.—Beware of little expenses which can be saved. 'Waste not, want not.'

Thrift, an aid to generosity.—A man who saves nothing can give nothing.

Extravagance conduces to meanness.—A man who runs to great expenses tries to recoup himself by being mean to others.

Aids to thrift.—Savings Banks, &c.

MODERN TIBETAN COMPOSITION.

Paper-setter—**MAHAMAHOPADHYAYA DR. SATISCHANDRA VIDYABHUSHAN, M.A., PH.D.**

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into Modern Tibetan *any two* of the following passages:—

(a) In the far-away days, before men had learned many truths 20 which they now know, they believed that for a long time man lived by himself without the companionship of wife or sister; and sometimes, when vexed by their fair companions, or tormented, it may be, by their own selfishness, they would invent stories telling that woman was sent upon earth to bring evil into their lives. Evidently they did not wish to remember the many blessings which they owed to her. Some of these stories remind us of our first mother, and the one I am going to tell is about a fair woman who, like Eve, brought misfortune to her husband as well as blessings.

(b) Once upon a time there was a great, great flood over all the earth. Some wicked people had angered the gods, and Jupiter sent all the waters of the earth and sky to cover the world. He did not want the waters to dry up until all the people were dead, so he shut fast in their caverns all the winds except the south wind, which was sometimes called the messenger of rain. And Jupiter sent this messenger of his to wander over all the earth. A mighty figure of ruin he was, as he swept along, emptying the clouds as he passed. His face was covered with a veil like the night, his beard was loaded with showers, and his wings and the folds of his cloak were dripping wet.

(c) The lion, the ass, and the fox formed a party to go out hunting. They took a large booty, and when the sport was ended be- thought themselves of having a hearty meal. The lion bade the ass allot the spoil. So, dividing it into three equal parts, the ass begged his friends to make their choice; at which the lion, in great indignation, fell upon the ass, and tore him to pieces. He then bade the fox make a division; who, gathering the whole in one great heap, reserved but the smallest mite for himself. 'Ah! friend,' says the lion, 'who taught you to make so equitable a division?' 'I wanted no other lesson,' replied the fox, 'than the ass's fate.'

2. Turn the following into Modern Tibetan:—

(a) First you must turn to the right, then to the left, and then go straight on a distance of about twelve paces.

(b) You may do as you please.

(c) It is better to be here than there.

3. Turn the following into English:—

(a) ང་འགོ་ན་ཅི་མ་རུང་།

(b) ཁྱོད་ཀྱིས་གཏོང་བས་ཆོག་གོ།

4. Correct the following:—

8

- (a) སྤྱི་མཆོག་གི་ཕྱི་མཆོག་ལྟར་ཆུང་སྤྱི་མཆོག་ལྟར་རེད།
 (b) མི་སྤྱི་མཆོག་གི་ཕྱི་མཆོག་ལྟར་རེད།
 (c) ལམ་གྱི་ཕྱི་མཆོག་ལྟར་རེད།
 (d) ང་ལྟར་ཆུང་སྤྱི་མཆོག་ལྟར་རེད།

(a) The rainy season.

(b) Honesty is the best policy.

(c) The town or village in which you were born—its boundary, area, population, roads, buildings, sources of amusement, health, scenery, &c.

KHASI COMPOSITION.

Paper-setter—U. ALEXANDER, ESQ., B.A., B.T.

Examiner—ROY ROWLAND THOMAS, ESQ., M.A.

1. Render the following into Khasi:—

(a) On Tuesday morning, the letter that Mrs. Jordan had so long and so anxiously looked for arrived; she was in sore distress—it ought to have reached her a fortnight since and had been delayed. It was from her son, saying how anxiously he was expecting her, enclosing a handsome remittance for her expenses out. In the pride of her motherly love she showed the letter to Daisy. It said:

"No more work, mother. I am a rich man, but I shall never enjoy my riches, until you are here to share them. I have a grand, beautiful house, but it will never be home, until you are in it. I will not return to England. I like America best—men are more equal there—so you must come to me, mother. Come by the Cunard line, and come first class. Have every comfort. You shall not keep house for any one again but me."

"He must be a very kind son," said Daisy as she returned the letter. "You will go, I suppose!" Then a sudden hope throbbed in her heart and flushed her face.

(b) "My dear chap, if you come to that, what man is fit to look 20
his children in the face?" he asked impatiently.

But then it occurred to him that he was idealising—a thing he hated.

"Not that children are not wicked little beggars themselves," he added cheerfully. "They steal and lie like anything, and torment one another devilishly. I know I did things as a boy that I would kick any grown man for doing, and so did my brothers and sisters. I tell you what it is, Tom, the devil is there all the time; he shows himself in different ways—that is all."

Tom could not swallow this gospel; he would give up neither his own iniquity nor the halo of purity to which his mind clung amid the sordid ruin of his life and home.

"If I could pull straight," he murmured despairingly. "Why shouldn't you? You are getting on in life, you know, after all."

"They guess something about it, I expect, Frank. It is not pleasant for a man to be ashamed before his own children. I thought Miss Bligh looked at me queerly at the funeral."

2. Compose sentences to show the idiomatic uses of the following Khasi phrases:— 20

Kyntiew doh, jied shiah, pynhiar synjat, bamja-khluit, and lait sa ka said.

3. Write an essay in Khasi on:— 40

(a) "No place like home,"

Or,

(b) Physical Exercise.

ENGLISH.

ALTERNATIVE PAPER.

Examiner—W. PAPWORTH, ESQ.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Great importance will be attached to clearness and accuracy of expression and style. Answers will be valued according to quality rather than quantity. Neatness of style and originality of composition are desired.

1. Write an essay on *one* of the following subjects:— 30

(a) Gardening as a hobby.

(b) The qualities of an ideal man of business.

(c) The advantages and disadvantages of conformity to fashion in dress.

2. Write a paragraph on *one* of the following:— 15

(a) Whatsoever thy hand findeth to do, do it with thy might.

(b) Give every man thine ear, but few thy voice.

3. Give in simple English the substance of *one* of the following:— 20

(a) War is the condition of this world. From man to the smallest insect all are at strife, and the glory of arms, which cannot be obtained without the exercise of honour, fortitude, courage, obedience, modesty, and temperance, excites the brave man's patriotism and is a chastening corrective for the rich man's pride. It is yet no

security for power. Napoleon lost by arms Poland, Germany, Italy, Portugal, Spain, and France, Fortune, that name for the unknown combinations of infinite power, was wanting to him, and without her aid the designs of man are as bubbles on a troubled ocean.

(b) He went through life bearing the load of a people's sorrows upon his shoulders with a smiling face. Their name was the last word upon his lips, save the simple affirmative with which the soldier who had been battling for the right all his lifetime commended his soul in dying 'to his great captain, Christ.' The people were grateful and affectionate, for they trusted the character of their 'Father William', and not all the clouds which calumny could collect ever dimmed to their eyes the radiance of that lofty mind to which they were accustomed, in their darkest calamities, to look for light. As long as he lived he was the guiding-star of a brave nation, and when he died the little children cried in the streets.

4. Give in your own words the purport of the following :—

20

Think not that they are blest alone
 Whose days a blissful tenor keep ;
 The God who rules on high hath shown
 A blessing for the eyes that weep.
 The light of joy shall fill again •
 The lids that once o'erflowed with tears ;
 And weary hours of woe and pain
 Are earnest of serener years.
 O ! there are days of joy and rest
 For every dark and troubled night.
 For grief may bide an evening guest,
 But joy shall come with morning light.

5. (a) Construct sentences to illustrate the difference between a *simile* and a *metaphor*. 15

- (b) Compose sentences containing examples of—
 (i) Synecdoche, (ii) Metonymy, and (iii) Euphemism.

HISTORY.

Paper-setters— BABU ADHARCHANDRA MUKERJEE, M.A.
B.L.
,, BEPINBIHARI SEN, M.A.

*Head Examiner—*BABU BEPINBIHARI SEN, M.A.

(MR. S. K. RAY, M.A.

BABU HARIPADA PANDAY, M.A.

BABU NRIPENDRAKUMAR DATTA, M.A.

BABU UPENDRAKUMAR RAY, M.A.

BABU NILRATAN MUKERJEE, M.A.

BABU NARENDRANATH MUKHERJEE, M.A.

BABU SATISCHANDRA CHAKRABARTI, M.A.

BABU SATISCHANDRA BASU, M.A.

BABU NIRMALKUMAR GUPTA, M.A.

BABU RADHAKRISHNA JHA, M.A.

BABU JIBANCHANDRA TALUKDAR, M.A.

BABU PARESCHANDRA MUKHERJEE, M.A.

BABU BIDHUBHUSHAN SENGUPTA, M.A.

MR. LUTIFAR RAHMAN.

BABU JATINDRAKISHORE CHAUDHURI.

BABU ATALBIHARI BHATTACHARYYA, M.A.

BABU NITAI CHAND SIL, M.A.

BABU RAKHALDAS BASU, B.A.

MR. S. K. MITRA.

Examiners— (To look over answer-papers written in Vernaculars.)

BENGALI.

BABU KALIPRASANNA BANERJEE, B.A.

BABU MANMATHAMOHAN BASU, M.A.

BABU KALIPRASANNA DAS GUPTA, M.A.

BABU BINAYKUMAR CHAUDHURI.

ASSAMESE.

BABU NABINCHANDRA BARDOLAI, B.L.

BURMESE

G. J. MUNRO, Esq.

URIYA.

BABU NILKANTA DAS, M.A.

HINDI.

BABU RADHAKRISHNA JHA, M.A.

URDU.

(MAULAVI WAHID HOSSAIN, B.L.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Only TWO questions to be attempted in EACH GROUP.

GROUP A.

1. By what measures did Asoka promote the cause of Buddhism ? 12
Estimate the work done by the several Buddhist councils.
2. What light does Megasthenes' account of India throw on the social and political institutions of the country in the reign of the first Maurya emperor ? 12
3. Give a short historical sketch of *each* of the following:—(a) 12
The kingdom of Bactria, (b) the Chola kingdom, (c) the Pal Dynasty of Bengal, and (d) the kingdom of Thanoswar.

GROUP B.

4. What was the state of Northern India at the time of Babar's invasion ? Give a sketch of his career and character. 12
5. Estimate the character of Aurangzebe as a man and as a ruler ; and attempt a rapid survey of the decline of the Mogul Empire from the death of Aurangzebe to the invasion of Nadir Shah. 12
6. Explain Lord Wellesley's policy of subsidiary alliances. Describe the circumstances which induced him to interfere in Mahratta affairs. What led to his recall ? 12

GROUP C.

7. How was the East India Company's system of judicial administration organized and improved by the reforms of (a) Warren Hastings, (b) Lord Cornwallis, (c) Lord William Bentinck, and (d) by the Act of 1861 ? 12
8. Briefly describe the struggle between the English and the French for supremacy in Southern India. 12
9. Write a short historical note on *each* of the following:— 12
Chanakya, Ibn Batuta, Banda, Amir Khan, Nana Farnavis, and the Doctrine of Lapsee.

GROUP D.

10. Give some account of the different kinds of revenue settlement in British India, and mention the sources of British Indian revenue other than taxation. 14
11. Classify the native states of India, giving two examples of each group. Explain—'A native state has not any international life.' 14
12. Write an explanatory note on each of the following:—the Prerogative of Mercy, the Education Dispatch of 1854, Home Charges, and the Trial by Jury in British India. 14

GEOGRAPHY.

Paper-setters—{ BABU RAMENDRASUNDAR TRIVEDI, M.A.
BABU BIRAJMOHAN MAJUMDAR, M.A., B.L.

Head Examiner—BABU BIRAJMOHAN MAJUMDAR, M.A., B.L.

Examiners—{ BABU HEMCHANDRA SANYAL.
BABU JITENDRANATH SEN, M.A.
BABU SURENDRANATH CHATTERJEE, M.A.
BABU SUSILKUMAR ACHARYYA, M.Sc.
BABU SISIRKUMAR MITRA, M.Sc.
BABU ASWINIKUMAR DATTA, M.Sc.
MR. M. SINHA.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. (a) Define the latitude and longitude of a place. 10
(b) What are the zones? Draw a diagram showing the zones and naming their boundaries. *Either,*
2. What are monsoons? How are they caused? Name the regions where they are prevalent. 10
Or,
How are springs formed? What are thermal springs? Name any such in India.
3. Explain : 10
(a) Why the water of the Mediterranean Sea is saltier than that of the Baltic;
(b) Why it is that the higher we ascend in a balloon the colder is the air.
4. Draw a map of the Mediterranean Sea, showing its gulfs, bays, and principal islands. 10
5. Give a short description of the great central tableland of Asia, with special reference to the principal mountain ranges and plateaus. 10
6. Where and what are the following: Waterloo, Lyons, Tokio, the Salt Range, Havana, Bueno Ayres, Jamaica, Cotopaxi, Philippines, Ladoga? 10
Either,
7. Name the counties of England lying on the North Sea, naming one principal town in each. 10
Or,
Give a short account of the following:—Sheffield, Eton, Windsor, Glasgow, Aberdeen, Belfast, Cardiff, Ben Nevis, Loch Lomond, Greenwich.
Either,
8. Give a short account of the climate and rainfall of India. 10
Or,
Mention the principal Feudatory States of India. Give a short account of Kashmir, with special reference to its natural features.

9. Where are the following, and what do you know of them :—the 10
Karakorum Range, Gilgit, Quetta, the Aravalli Range, Bangalore,
Madura, Manas-sarowar, Akyab, Mussoorie the Meghna ?

10. Name the islands forming the Japanese Empire. Mention its 10
chief towns. What are the forms of religion prevalent in Japan ?
To what race do the Japanese belong ?

MECHANICS.

Paper-setters— $\left\{ \begin{array}{l} \text{HON. JUSTICE SIR ASUTOSH MUKHERJEE,} \\ \text{KT., C.S.I., M.A., D.L.} \\ \text{BABU JNANCHANDRA GHOSH, M.A.} \end{array} \right.$

Examiner—BABU PHANINDRANATH GHOSH, M.A.

Attempt only EIGHT of the following questions, which are of equal numerical value.

Diagrams must be drawn neatly in pencil. In awarding marks attention will be paid to neatness and cleanliness.

Candidates are required to give their answers in their own words as far as practicable.

1. 'The acceleration of a falling body at a certain place is 32 ft. per sec. per sec.' Explain this statement as clearly as you can.
2. Prove the formula $s = ut + \frac{1}{2}ft^2$.
3. State Newton's Second Law of Motion, and show that the weight of a body is proportional to its mass.
4. A force of a pound weight acting upon a certain body for a minute generates in it a velocity of 60 miles an hour. Find the mass of the body.
5. Describe an experiment to find the value of g at any place on the earth's surface.
6. Enunciate and explain the proposition known as the Parallelogram of Forces.
7. Define centre of gravity of a body. Find the centre of gravity of a uniform triangular lamina, and show that it is the same as that of three equal particles placed at the vertices of the triangle.
8. Define 'moment of a force' about a point. Prove that the moment of a couple is equal to the algebraic sum of the moments of the two forces forming the couple about any point in the plane of the forces.
9. The line of action of the resultant of two parallel forces of 10 lb. and 15 lb. weight is 20 ft. from that of the smaller force. Find the distance between the lines of action of the two forces.
10. What is a pulley ? Draw the diagram of the third system of pulleys, and find its mechanical advantage.
11. What is a lever ? Mention the characteristics of the three kinds of levers. Under which kinds of lever would you place the following ?
 - (a) A pair of nut-crackers.
 - (b) An oar of a boat.
 - (c) The treadle of a sewing machine.
 - (d) The forearm when raising a load.

I.A. and I.Sc. Examinations.

1918.

ENGLISH.

Paper-setters—{ HON. SIR DEBAPRASAD SARBADHIKARI,
C.I.E., M.A., LL.D.
J. R. BANERJEE, ESQ., M.A., B.L.
J. W. HOLME, ESQ., M.A.
J. N. DAS GUPTA, ESQ., B.A. (Oxon).

FIRST PAPER.

Head Examiner—J. R. BANERJEE, ESQ., M.A., B.L.

Examiners—{ BABU BASANTAKUMAR RAY, M.A.
BABU NRIPENDRACHANDRA BANERJEE, M.A.
BABU RAMPADA MAJUMDAR, M.A.
BABU GIRIJASANKAR BHATTACHARYYA, M.A.
BABU PRAPHULLACHANDRA GUHA, M.A.
BABU HIRANKUMAR BANERJEE, M.A.
BABU MANIBHUSHAN SEN, M.A.
BABU MATILAL CHATTERJEE, M.A.
BABU SYAMACHARAN MUKHERJEE, M.A.
BABU PURNACHANDRA RAICHAUDHURI, M.A.
BABU ISANCHANDRA GHOSH, M.A.
BABU GOPALCHANDRA MAITRA, M.A.
J. N. RAWSON, ESQ., M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

Either,

1. It has been said that Cowper's *Task* is partly descriptive and 10
partly didactic. Mention the subjects treated in the Fourth Book
of the poem which come under each of these heads.

Or,

To what does Cowper trace the corruption of country life ?

2. Explain fully with reference to the context *any three* of the following passages:— 18

- (a) So I, with brush in hand and pallet spread
With colours mixed for a far different use,
Paint cards and dolls, and every idle thing
That fancy finds in her excursive fights.
- (b) In this she lays
A weight of ignorance; in that, of pride:
And smiles delighted with the eternal poise.
- (c) Time as he passes us, has a dove's wing,
Unsoiled and swift, and of a silken sound;
But the world's Time is Time in masquerade.
- (d) 'O evenings worthy of the gods!' exclaimed
The Sabine bard. O evenings, I reply,
More to be prized and coveted than yours,
As more illumined, and with nobler truths.
That I and mine, and those we love, enjoy.
- (e) And though now reclaimed
By modern lights from an erroneous taste,
I cannot but lament thy splendid wit
Entangled in the cobwebs of the schools.

Either,

3. Give in simple English Wordsworth's estimate of the Sonnet. 10

Or,

Analyse Wordsworth's thoughts embodied in the poem 'To the Cuckoo,' noticing specially in clear language the idealism taught in it.

4. Explain fully *any three* of the following passages:— 12

- (a) Thus fares it still in our decay:
And yet the wiser mind
Mourns less for what age takes away
Than what it leaves behind.
- (b) For oft, when on my couch I lie
In vacant or in pensive mood,
They flash upon that inward eye
Which is the bliss of solitude.
- (c) Such ebb and flow must ever be,
Then wherefore should we mourn?
- (d) 'Twas a day of shame
For them whom precept and the pedantry
Of cold mechanic battle do enslave.
- (e) 'Tis a note of enchantment; what ails her? She sees
A mountain ascending, a vision of trees.

Either,

5. What in your opinion are the remarkable features of *Sohrab and Rustum* as a poem? Do you consider it to be an epic? Give reasons for your answer. 10

Or,

Sketch the character of Sohrab.

6. Explain clearly *any two* of the following passages, giving in each case a full exposition of the simile contained in the passage:— 12

- (a) But as a troop of pedlars, from Cabool,
Cross underneath the Indian Caucasus,

That vast sky-neighbouring mountain of milk snow ;
 Crossing so high, that, as they mount, they pass
 Long flocks of travelling birds dead on the snow,
 Choked by the air, and scarce can they themselves
 Slake their parch'd throats with sugar'd mulberries—
 In single file they move, and stop their breath,
 For fear they should dislodge the o'erhanging snows --
 So the pale Persians held their breath with fear.

- (b) For we are all, like swimmers in the sea,
 Poised on the top of a huge wave of fate,
 Which hangs uncertain to which side to fall.
 And whether it will heave us up to land,
 Or whether it will roll us out to sea,
 Back out to sea, to the deep waves of death,
 We know not, and no search will make us know ;
 Only the event will teach us in its hour.

- (c) And he saw that Youth,
 Of age and looks to be his own dear son,
 Piteous and lovely, lying on the sand,
 Like some rich hyacinth which by the scythe
 Of an unskilful gardener has been cut,
 Mowing the garden grass-plots near its bed,
 And lies, a fragrant tower of purple bloom,
 On the mown, dying grass—so Sohrab lay,
 Lovely in death, upon the common sand.

7. (a) What are the respective companions of Mirth and Melancholy as mentioned by Milton in *L'Allegro* and *Il Penseroso* ? 9

(b) Johnson says, ' I am afraid that I always meet some melancholy in his mirth.' Justify this remark on Milton by a reference to or quotation from *L'Allegro*. 4

8. Explain fully *any three* of the following passages :— 15

- (a) Then to come, in spite of sorrow,
 And at my window bid good-morrow.
 (b) The melting voice through mazes running,
 Untwisting all the chains that tie
 The hidden soul of harmony.
 (c) And the mute Silence hist along,
 'Less Philomel will deign a song,
 In her sweetest saddest plight,
 Smoothing the rugged brow of Night.
 (d) And let some strange mysterious dream
 Wave at his wings, in airy stream
 Of lively portraiture displayed,
 Softly on my eyelids laid.

ENGLISH.

SECOND PAPER.

Head Examiner—DR. H. C. MUKHERJEE, M.A., PH.D.

<i>Examiners</i> —	{	BABU SURESCHANDRA RAY, M.A.
		BABU NARENDRANATH CHAKRABARTI, M.A.
		BABU SATYENDRANATH BOSE, M.A.
		BABU PRIYANTH CHATTERJEE, M.A.
		MISS VICTORIA MUKHERJEE, M.A.
		BABU HARANCHANDRA CHAKLADAR, M.A.
		BABU RHUPENDRACHANDRA BOSE, M.A.
		BABU CHARUCHANDRA BISWAS, M.A., B.L.
		MISS REJINA GUHA, M.A., B.L.
		BABU SAILESWAR SEN, M.A.
		BABU RABINDRAMOHAN DATTA, M.A.
		BABU MOHINIMOHAN BHATTACHARYYA, M.A.
	{	BABU SOMESWAR MUKHERJEE, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

SECTION A.

Answer question 1 and ONE other.

1. Explain, with reference to the passages in which they occur, 18
three of the following :—

(a) Inside is a treasure greater than either at St. Denys, or Loretto, or Toledo.

(b) She had seen the mole on the thin white hand, exactly like the mole on baby Gerard's. Her search was successful.

(c) The sick man was Gerard, come to end his life as he began it. He entered as a novice, on probation.

(d) We take him to Rotterdam to abide the sentence of the Duke.

(e) 'Heyday,' says she, 'the shafts fly high this morn.' I told her, 'Ay, for they hit the truth.'

2. Write a short description of Gerard's journey to Rome. 16

3. Give a brief character-sketch of Denys of Burgundy. 16

SECTION B.

Answer question 4 and ONE other.

4. To what characters in *The Odyssey* do *three* of the following passages refer? Add notes in explanation of allusions. 12

(a) His character is very like that of the worst stamp of the 'Cavalier' in the days of our own Charles II.

(b) A genuine country gentleman of the age of Homer.

(c) Their name was held by the Greeks a synonym for all that was dark and barbarous in the mists of antiquity.

(d) From this maternal ancestor Ulysses might have inherited a large share of the subtlety which distinguished him.

(e) One of the sweetest creations of Greek fiction.

5. Describe briefly the splendours of the palace of Acinours. 18

6. Give in your own words an outline of the adventure of Ulysses with the Cyclops. 18

SECTION C.

Answer question 7 and ONE other.

7. Explain *three* of the following passages, with reference to the essays in which they occur :— 18

(a) It is sung by some blind crowder with no rougher voice than rude style.

(b) A garden was the habitation of our first parents before the Fall.

(c) Dr. Sydenham is very lavish in its praises.

(d) Sextus Quintus was not of so generous and forgiving a disposition.

(e) This great and learned man...acted in all parts of life like a second Democritus.

8. Give the substance, in your own words, of the Vision of Mirza. 18

9. Summarize Addison's conclusions on (a) Temperance, (b) the value of Exercise, and (c) withdrawal from the world. 18

ENGLISH.

THIRD PAPER.

Head Examiner—REV. DR. G. HOWELLS, M.A., PH.D
B.LITT., B.D.

(DR. S. K. GUPTA, M.A., B.LITT., PH.D.
BABU BASANTAKUMAR RAY.
BABU GIRINDRANATH CHATTERJEE, M.A.,
B.T.
BABU NARENDRANATH CHATTERJEE, M.A.
BABU ASUTOSH CHATTERJEE, M.A.
BABU SURESHCHANDRA SENGUPTA, M.A.
Examiners—{ BABU PADMINIBHUSHAN RUDEA, M.A.
BABU BIPINBIHARI GUPTA, M.A.
BABU PULINBIHARI KAR, M.A.
BABU SURENDRACHANDRA GUPTA, M.A.
MR. G. H. MATHEWS, M.A.
BABU KIRANCHANDRA BASU, M.A.
DR. C. H. WATKINS, M.A.
{ BABU KIRANKUMAR BASU, M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Write an essay on one of the following subjects:— 25
 - (a) 'Tis only noble to be good.
Kind hearts are more than coronets,
And simple faith than Norman blood.
 - (b) Influence of climate upon character.
 - (c) The picturesque and historic features of any town or district in India you know.
2. Develop the thought contained in the following:— 15

Howe'er ye babble, great deeds cannot die:
They with the sun and moon renew their light
For ever, blessing those that look on them.
3. Give in your own words, as concisely as you can, the substance 20
of one of the following passages, and comment on its underlying
idea:—
 - (d) What fine fellows are the great explorers! With what magnificent chivalry do they go forth to fight the sun, the sea, the snow, that they may win new lands, new light for the world! My lady, Science hath her martyrs among them, not saints indeed, but men as grand, as brave, and as enduring. The traveller is certainly not a martyr; yet doth he feel a little of the same spirit within him, and his small discoveries are to him an America. For to travel anywhere intelligently is to discover for yourself, if not for any one else; and the undiscovered country lies not only in the heart of Africa, nor round about the Poles.

(b) Time glides on ; fortune is inconstant ; tempers are soured ; bonds which seemed indissoluble are daily sundered by interest, by emulation, or by caprice. But no such cause can affect the silent converse which we hold with the highest of human intellects. That placid intercourse is disturbed by no jealousies or resentments. These are the old friends who are never seen with new faces, who are the same in wealth and in poverty, in glory and in obscurity. With the dead there is no rivalry. In the dead there is no change.

4. Give the substance of the following poem, bringing out what you consider to be its main idea :— 20

As a fond mother, when the day is o'er,
Leads by the hand her little child to bed,
Half willing, half reluctant to be led,
And leave his broken playthings on the floor,
Still gazing at them through the open door,
Nor wholly reassured and comforted
By promises of others in their stead,
Which, though more splendid, may not please him more ;—
So, Nature deals with us, and takes away
Our playthings one by one, and by the hand
Leads us to rest so gently, that we go,
Scarce knowing if we wished to go or stay,
Being too full of sleep to understand
How far the unknown transcends the what we know.

5. (a) Name and explain the figures of speech used in any four of the following :—

- (i) He has a fluent tongue.
- (ii) All the world knows him.
- (iii) It was a weary journey.
- (iv) In the midst of life we are in death.
- (v) I am tired to death.

(b) Expand the following into similes ;—

- (i) Coming events cast their shadows before.
- (ii) Afghanistan is the Switzerland of Asia.

6. Scan the following lines, and name the metre in which they are written :— 8

See the wretch that long has tossed
On the thorny bed of pain,
At length repair his vigour lost
And breathe and walk again.

BENGALI COMPOSITION.

Paper-setters—{ HON. JUSTICE SIR ASUTOSH MUKHERJEE,
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{ BABU PANCHANAN GHOSHAL, M.A., B.L.
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BABU JAGADANANDA RAY.
BABU CHARUCHANDRA BASU.
BABU NAGENDRANATH BASU.
BABU HEMCHANDRA VIDYARATNA, KABYA-
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BABU CHARUCHANDRA BANERJEE, B.A.
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Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate any two of the following passages into Bengali:—

20

(a) One day when Viráta and four of the Pándavas were absent, Duryodhana and his brothers made an expedition against Viráta's capital and carried off some cattle. Uttara, the son of Viráta, determined to follow and attack the Kuru army, if any one could be found to act as his charioteer. Vrihannalá undertook this office, and promised to bring back fine clothes and ornaments for Uttará and the other women of the palace. When they arrived in sight of the Kuru army, the courage of Uttara, who was a mere youth, failed him. Vrihannalá then made him act as charioteer, while he himself undertook to fight the Kauravas. Upon that terror seized Bhíshma, Duryodhana and their followers.

(b) Babar was a soldier of great daring and strength. He tells us in his autobiography that in his old age 'after his health had begun to fail, he rode in two days a distance of 160 miles, and on the same journey twice swam across the Ganges, as he had done with every other river he had met with.' His mind was full of vigour as his body. Besides attending to the business of his kingdom, he looked after agricultural improvements and public works. He had to suffer such hardships and privations as seldom fall to the lot of a prince, and yet he bore them all with a patient and cheerful spirit. He had a very kind and affectionate heart which he retained up to the end of his life.

(c) One day Gautama saw in the street an old man bent with age, and another day he saw a dead body. When he was told by his servant that everybody, he himself and his lovely wife, would grow old and die, it made him very sad. For hours he would sit and think what was the reason that the world was full of sadness. After a time he became discontented with his life of love and pleasure in the palace. When he was twenty-nine he left his home one night when everybody was asleep and wandered into the forests to seek the truth about life. First of all he went as a pupil to the *Rishis* or with men who lived in caves in the forest. But he found that they could teach him nothing. For some years he starved himself and performed penances hoping that he would thus find peace of mind.

2. Rewrite any three of the following passages, substituting a single word for the underlined words in each:—

- (a) যে ভূমির উৎপাদিকা শক্তি নাই তাহাতে মার দেও ।
 (b) তাহার দুঃখ সকলেরই মর্মান্বল স্পর্শ করে ।
 (c) নৃপতি ঋনানারায়ণের সভাপণ্ডিত পুরুষোত্তম ব্যাকরণে ব্যুৎপন্ন ছিলেন এবং তিনি জায়গা ভাল জানিতেন ।
 (d) ভয়ে আমার শরীর "পা হইতে মাথা পর্যন্ত" কাঁপিতে লাগিল ।

3. Rewrite the following, correcting all errors:—

(a) যাহা দোষনীয়, তাহাই পরিত্যজ্য ; কেননা ইহার কোন উপকারীতা নাই ।

(b) বালকটি জলে আকর্ষণ পর্যন্ত নিমগ্ন হইয়া গিয়াছে ; উহাকে উত্তোলন করা আবশ্যিকীয়, কিন্তু আমার উহা সাধ্যারত্ত নহে ।

(c) ইতিহাস ইহা বারম্বার সপ্রমাণিত করিয়াছে যে ; যশেচ্ছা প্রণোদিত হইয়া বৈদেশিকগণ, ধনধান্য-শালিনী অত্র ভারত ভূমিতে আগমণ ও যুদ্ধান্তর তাহার। এদেশের অধিবাসীগণের সঙ্গে ঐক্যতা এবং সখ্যতার ঘনিষ্ট হুত্রে মিশিয়া গিয়াছিল ।

4. Distinguish between:—

উপাদান and উপাধান । বলি and বলী । কোন and কোন্ । দ্যুত and দূত । সূত and সূত । আশা and আসা ।

5. Write an essay on *any one* of the following subjects:—

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- (a) Health and longevity.
- (b) Bengal under different seasons.
- (c) Raja Ram Mohan Roy.
- (d) Ishwar Chandra Vidyasagar.
- (e) A Mohamedan saint.

HINDI COMPOSITION.

Paper-sellers—{ BABU SOMNATH JHARKANDI, M.A.
BABU LALA SITARAM, B.A.

Examiner—BABU PURANCHAND NAHAR, M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Translate the following passages into Hindi:—

(a) Every one can make the very best of his opportunities. He may believe that life is not so full of happiness that he cares to prolong it, but he should remember this: that while he lives he will enjoy more happiness and confer much more happiness on others if he is well and cheerful and in possession of all his faculties unimpaired. There was once a time when it was considered commendable to be sick; it indicated delicacy and called forth the active sympathies of friends to the extent that the invalid was quite a sovereign in the household. But we know to-day that there is nothing honourable in being sick. Indeed, it is something to be ashamed of. For willingly or unwillingly some of nature's laws have been broken, and one is paying the penalty. We have no right to inflict ourselves weak, helpless, and despondent upon our fellow-beings if we can possibly avoid it. 20

(b) Loyalty is not a thing that is owed. It is a thing that grows or does not grow. When people have been comrades and worked together for a long time even with quarrels, there rises normally among decent human beings a bond of trust, a mutual expectation. Now I believe that between England and India that bond exists. We have had a long experience together, and mostly we have not failed one another. In your times of need, in plague or famine, you confidently expect us to help, and you find even our haughtiest officials working their fingers to the bone to help your people. In our times of need, well, you have not often had the full chance of showing what you could do. It is one of your grievances, and one with which I warmly sympathize. But now when we are threatened to the very life you have helped. You have given us more than we ever dared expect. The message of the Indian kings and princes which Mr. Roberts read out in the House of Commons will not easily be forgotten. We shall, I believe, win this war. India will share our glory.

2. Write an essay on *any one* of the following subjects:—

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- (a) Influence of exercise on health—insufficient exercise—over-exertion—the various kinds of exercise.

(b) Life in an Indian village—principal occupations of the inhabitants—the influence of the zemindar and the chowkidar.

(c) The character of Sita as described in the Ramayana.

3. Rewrite the following correctly :—

20

फिर शीतक और चेला में ऐसा ही संबंध होनी चाहिये गुरु अपना चेला को कितना परिचय से सब प्रकार का तकलीफ सह कर शिक्षाता है। गुरु जल करता है कि उस का चेला बुद्धिमान हो जाये, अच्छी चाल चलन का बन जाय। हम देखे कि बहुत सा लड़का लोग अपना गुरु की आदर नहीं करता। यह बड़ा अनुचित बात है। शीतक की उपकार न मानना कृतघनता की पाप है।

URDU COMPOSITION.

Paper-setters—{ MAULAVI MD. MUSTAPHA KHAN, M.A. B.L.
MR. MD. USOF.

Examiners—{ KHAN SAHEB ABDUL WALI.
DR. M. HUQ., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into Urdu any two of the following passages :—

(a) There are many tests by which a gentleman may be known ; but there is one which never fails. How does he exercise power over those subordinate to him ? How does he conduct himself towards women and children ? How does the officer treat his men, the employer his servants, the master his pupils, and a man in any other station those who are weaker than himself ? The discretion, forbearance, and kindness with which power in such cases is used may indeed be regarded as the crucial test of gentlemanly character. When La Motte was one day passing through a crowd, he accidentally trod upon the foot of a young fellow, who forthwith struck him on the face. ' Ah, sire,' said La Motte, ' you will surely be sorry for what you have done when you know that I am blind.'

He who tyrannizes over the weak and helpless may be a coward, but no true man. Strength, with the consciousness of strength, in a right-hearted man, imparts a nobleness to his character ; but he will be most careful how he uses it.

(b) We have seen that there was a time, long before the beginning of recorded history, when the forefathers of the various Aryans dwelt together as one people, speaking one language. And the advances which they had made towards civilization show that they must have dwelt together for a long time, but a time whose length we cannot undertake to measure. Nor can we undertake to fix a

date for the time of the great separation, when the families which had hitherto dwelt together parted off in different directions and became different nations, speaking tongues which are easily seen to be near akin to each other, but which gradually parted from one another, so that different nations could no longer understand each other's speech. All that we can say is, that these are facts which happened long before the beginnings of written history, but which are none the less certain because we learn them from another kind of proof. The various wandering bands must have parted off at long intervals one by one; and it often happened that a band split off into two or more bands in the course of its wanderings.

(c) When the dervish saw that the prince's mind was made up, 20
he drew a ball from a bag that lay near him, and held it out. 'If it must be so,' he said, with a sigh, 'take this, and when you have mounted your horse throw the ball in front of you. It will roll on till it reaches the foot of a mountain, and when it stops you will stop also. You will then throw the bridle on your horse's neck without any fear of his straying, and will dismount. On each side you will see vast heaps of big black stones, and will hear a multitude of insulting voices, but pay no heed to them, and above all, beware of ever turning your head. If you do, you will instantly become a black stone like the rest. For those stones are in reality men like yourself, who had been on the same quest, and have failed, as I fear that you will fail also. If you manage to avoid this pitfall, and to reach the top of the mountain, you will find there the talking bird in a splendid cage, and you can ask him where you are to seek the singing tree and the golden water.'

2. (a) Give the root (*ماور*) of each of the following words:— 2

انكسار - استفسار - انتشار - تقصير - ترجيح

(b) Form derivatives from any five of the undermentioned roots, 10
and illustrate their uses in sentences:—

نقل - فکر - شرح - قسمت - عقل - نفس - علم

3. Give four idiomatic uses of each of the following words and use 8
them in sentences:—

پانی - خاک - آنکھ - جان *

4. Write an essay in Urdu on one of the following subjects:— 40

(a) Indian Railways:—Introduction—advantages, disadvantages—
their influence upon the country.

(b) Famine:—Causes—effects—preventive measures—relief works—
whether beneficial in any way—concrete illustrations.

(c) Knowledge is Power.

(d) The Beauties of Nature.

ORIYA COMPOSITION.

Paper-setters— { BABU MADHUSUDAN DAS, B.A.
 { BABU BRAJANANDAN DAS, M.A.

Examiner—BABU DASARATHI PANIGRAHI, B.A., B.T.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate any two of the following passages into Oriya:—

(a) Napoleon Buonaparte was of opinion that 'the future good or bad conduct of a child depends entirely on the mother.' Once in the course of a conversation with Madame Campan on the subject of public education, he remarked, 'The old systems of instruction seem to be worthless. What, do you think, is yet wanting for the better instruction of the people?'—'Mother',—immediately replied Madame Campan. Her reply struck the emperor. 'Yes!' he said, 'here you have a system in a word—mothers trained to properly instruct their children' 20

Napoleon himself was accustomed to attribute the training of his character to his mother. She was a woman distinguished for her strength of purpose and vigorous understanding.

(b) Being able to swim, I swam until night, when my arms and shoulders were tired, and, in this perilous situation, I gave myself up as lost; but the sea rose with the violence of the wind, and a wave like a vast castle threw me upon the land. I ascended the shore, and after I had wrung out my clothes and spread them upon the ground to dry, I slept: and in the morning I put on my clothes again, and, looking to see which way I should go, I found a tract covered with trees, round which I lost no time in walking. 20

(c) Then Apollyon, spying his opportunity, began to gather up close to Christian, and, wrestling with him, gave him a dreadful fall. And with that Christian's sword fell out of his hand. Then said Apollyon, 'I am sure of thee now,' and with that he had almost pressed him to death, so that Christian began to despair of life. But as God would have it, while Apollyon was fetching his last blow, thereby to make a foul end of this good man, Christian nimbly reached out his hand for his sword, and cried out, saying, 'Rejoice not against me, oh mine enemy! When I fall, I shall arise!' and, with that, gave him a deadly thrust which made him give back as one that had received his mortal wound. 20

2. Rewrite the following sentences by substituting one word for each set of words underlined therein. The new words must be equivalent both in meaning and structure to the words they replace:— 10

(a) ଯେଉଁ ବ୍ୟକ୍ତି ଅଧିକ ନିଦ୍ରା ଯାଏ ଏକ ଯେ ସ୍ୱପ୍ନାବସ୍ଥାରେ ଅଳସୁଆ

ତାହାର ପ୍ରାର୍ଥନା ସବୁ ପ୍ରକାରର ଅର୍ଥକୁ ଅବହେଳା କରି ନ ଥିଲେ ହେଁ .

ବ୍ରାହ୍ମଣ ହୁଏ ନାହିଁ ।

(b) ଗେରୁମାଟି ମିଶିଥିବା ଜଳରେ ସ୍ନାନ କରିବା ବ୍ୟକ୍ତିର ବସ୍ତ୍ର ମଳିନ ହୋଇ ଯାଏ ।

-(c) ଯେଉଁ ବ୍ୟକ୍ତିର ଅତ୍ୟନ୍ତ ପ୍ରତିଭା ଅଛି ସେ ସମସ୍ତଙ୍କ ମଧ୍ୟରେ ଅସ୍ପକ୍ଷ ସୂକ୍ଷ୍ମର ଯୋଗ୍ୟ ହୁଏ ।

(d) ସାଗର କୂଳର ସମୀପସ୍ଥ ପ୍ରଦେଶରେ ଦଣ୍ଡାୟମାନ ହୋଇ ଆମ୍ଭେ ସମୁଦ୍ର ପର୍ଯ୍ୟନ୍ତ ବିସ୍ତୃତ ଧରଣୀର ଛବିରଙ୍କୁ ଅଭ୍ୟର୍ଥନା କରି ଥିଲୁ ।

Either,

3. Change into simple sentences the following complex and compound ones :— 10

(a) ଯେତେବେଳେ ଭାରତରେ ହିନ୍ଦୁ ରାଜାମାନେ ଦୁର୍ବଳ ହୋଇ ଥିଲେ ଏବଂ ସେମାନଙ୍କ ମଧ୍ୟରେ ଏକତା ନ ଥିଲା ତେତେବେଳେ ଯେଉଁ ପାରସ୍ୟ ସୁଦୂର ଅବସ୍ଥିତ ଏବଂ ଯାହାର ଲୋକେ ଯୁଦ୍ଧପ୍ରିୟ ଓ ମୁସଲମାନ ଧର୍ମାବଲମ୍ବୀ ସେହିମାନେ ଏଦେଶ ଅସ୍ପକ୍ଷର କରି ନେବାକୁ କୃତସକଳ୍ପ ହେଲେ ।

(b) ଯେ ରାଜମୁକୁଟ ଧାରଣ କରନ୍ତୁ ଏବଂ ଯେ ରାଜକାର୍ଯ୍ୟ କରନ୍ତୁ ବାହାରେ ସେମାନଙ୍କର ଯେତେ ପ୍ରତିପତ୍ତି ଓ ସମ୍ମାନ ଥାଉ ସକ୍ଳବେ, ମନ ସର୍ବଦା ଚନ୍ଦ୍ରାରେ ଆକୂଳ ଥାଏ ।

(c) ସମୁଦ୍ର ଗର୍ଜିବାର ଶୁଣୁ ଅଛି, ମେଘ ଉଡ଼ାଉ ଅଛି ଏବଂ ହିପିହିପି ବର୍ଷା ହେଉ ଅଛି ଦୈର୍ଘ୍ୟ ଅଛି, ଏସ୍ତରେ ପୁଣି ଖଣ୍ଡେ ଛତା ନ ଘେନି ବାହାରି ଅଛି ; ଏହା ଅବିବେଚନାର କାର୍ଯ୍ୟ ନୁହେଁ କି ?

(d) ବୈଶାଖ ମାସ ହୋଇ ଥିଲା, ରାଜ୍ୟରେ ବନ୍ଧ ପଡ଼ି ଥିଲା, ବାଆଁ ସୁଲୁସୁଲୁ ବନ୍ଧୁ ଥିଲା, ଆମ୍ଭେ ଦୁହେଁ ପିଣ୍ଡା ଉପରେ ବସି ଥିଲୁ, ମୁହଁକୁ ମୁହଁ ଲଗାଇ କଥାବାର୍ତ୍ତା କରୁ ଥିଲୁ ।

Or,

Correct all the errors in the following paragraph, and rewrite the same with proper punctuation :— 10

ଯେଉଁ ନାହିର ହୃଦୟ ମନ୍ଦିରରେ ପଞ୍ଜରୁପ ସିବ ବିମୁକ୍ତ ପ୍ରତିଚନ୍ଦନ ବିମିଶ୍ଟ ଭକ୍ତିପଦ୍ମଦ୍ୱାରା ସଦା ସର୍ବଦା ପୁଜିତ ସେହି ନାହିର ହୃଦୟମାନେ ସିବାଳୟ ତୁଲ୍ୟ ସୌରଭ ବିକିରଣ କରୁ ଥାନ୍ତି ଯେହି ନାହି ସ୍ୱଭାବତ

the fight, they took part in sports and games, or combed their long hair, as they always did for great festivals. The Persian king sent a spy, who told him what the Greeks were doing. He was much surprised, and could hardly believe their news.

He had a throne built for himself, and on the fifth day he sat on it, and watched his army go forward to the attack. Bravely the soldiers went against the Greeks, and soon were fighting hand to hand.

2. Expand the following idea in simple Assamese :—

8

(a) মৃত্যু মৰনশীল। কিন্তু কে জনমানে মৰনক জয় কৰি অমৰত্ব লাভ কৰিছে। মৃত্যুৰ সংহাৰিণী শক্তিয়ে তেওঁলোকক পৃথিবীৰ পৰা নিৰ্মূল কৰিব পৰা নাই।

3. Explain the following Assamese words and phrases :—

5

কাণ-সমনীয়া, আধানার্জি, আচন্দাই, কোণালগা, সাউদ।

4. Render the following passage into modern Assamese :—

5

পূৰ্বৰতে যশোদানন্দন কৃষ্ণত ব্ৰজবাদীৰ যেমন স্নেহ আছিল
এবে অপুনাৰ পুত্ৰতো এক বৎসৰ পৰ্য্যন্ত তেমন স্নেহ বাঢ়িল।
ভগৱন্তো এমনে সৰ্বকপ হুয়া নানা ক্ৰীড়া কৰি বৎসৰ গঞাইল।

5. Illustrate the use of the following words :—

2

অমিয়া, শ্ৰবাহ।

6. Write an essay on *any one* of the following subjects :—

40

(a) তোমাৰ নিজ গাওঁখন বৰ্ণনা কৰা।

(b) বাতৰি কাকতৰ উপকাৰিতা।

(c) বিপদত ধৈৰ্য্য।

(d) প্ৰকৃত ভদ্ৰলোক কোন ?

(e) অসমীয়া সাহিত্যৰ বৰ্ত্তমান অবস্থা।

KHASI COMPOSITION.

Paper-setter—ROY ROWLAND THOMAS, ESQ., M.A.

Examiners— { ROY ROWLAND THOMAS, ESQ., M.A.
REV. J. C. EVANS.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Write an essay in Khasi on 'Good Manners' Headings: the meaning of 'good manners'—their diversity in different countries— they presuppose self-control—they are the peacemakers of mankind—they need not necessarily express goodness of heart—their relation to the ordinary conception of a gentleman. 40

2. Write a short story in Khasi illustrating the saying 'honesty is the best policy'. 10

3. Compose sentences in Khasi, using the following expressions:— 10
bak jingbak ; krib-krib ; ka bok, ka rwatang ; thud thud ; thap-dap.

4. Translate the following into Khasi:— 15

(a) In literature the history of the Vikramadityan age opens with the brilliant name of Kalidasa. His creations of fancy seem to live and move among us; his matchless melody of verse never ceases to please; and his inexhaustible and apt similes are as natural and as profuse as the wild flowers of an Indian jungle, and quite as surprising and sweet.

(b) Then Minerva dropped her staff and cried, 'Lo! she is come!' and she took on her true shape and showed herself in all her god-like splendour. The bystanders fell upon the ground and worshipped her. But Arachne, foolish Arachne, held her head high, and did not show the least fear or awe; on the contrary, she again asked Minerva to enter into a trial of skill.

Without more words, the goddess and the humble girl took their stand, each before an empty loom, and began to work in silence. The group in the back of the room watched, breathless with wonder and awe.

In the centre of Minerva's loom there soon appeared figures telling the story of a famous contest in which the gods had taken part; and into each of the four corners she wove a picture of the fate that had overtaken daring mortals who had opposed the gods. These were meant as a warning to Arachne.

BURMESE COMPOSITION.

Paper-setters—{ MR. MAUNG WE LIN.
MR. MAUNG TIN, M.A.

Examiner—MAUNG BA MAW, B.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate any two of the following into Burmese:—

(a) Canute's celebrated reproof of his courtiers exhibits high moral elevation. Some of his flatterers, breaking out one day in admiration of his grandeur, exclaimed that everything was possible for him; upon which the monarch, it is said, ordered his chair to be set on the sea-shore when the tide was rising, and as the waters approached he commanded them to retire and to obey the voice of him who was lord of the ocean. He feigned to sit some time in expectation of their submission, but when the sea still advanced towards him and began to wash him with its billows, he turned to his courtiers and remarked to them that every creature in the universe was feeble and impotent, and that power resided with one Being alone, in whose hands were all the elements of nature, who could say to ocean—'Thus far shalt thou go and no farther.'

(b) It does not matter very much where Christmas is kept, so long as the family can get together, and all hearts be filled with His love, who came as a babe in Bethlehem to bring blessings to the world. Under such circumstances Christmas is a joyous time everywhere, and dear friends, meeting together for a few days of social intercourse, may well bless the season, and retain their old love for it. It is interesting to think of the various scenes into which the grey head and kindly face of old Father Christmas are brought with shouts of welcome. He comes to the place where flowers and perfumes give him a taste for summer's months of gladness, and where men who occupy elevated positions are glad to rest them in his genial smile.

(c) You love many things because you are accustomed to them, and are pained by many things because they are strange to you; but that does not make the accustomed sight more beautiful, or the strange one less so. The well-known object may be dearer to you, or you may have discovered charms in it which others cannot; but the charm was there before you discovered it, only needing time and love to perceive it. You love your friends and relations more than all the world beside, and may perceive beauties in their faces which others cannot perceive; but you feel you will be ridiculous in allowing yourself to think them the most beautiful persons in the world; you acknowledge that the real beauty of the countenance depends on fixed laws of form and expression, and not on the affection you bear to it, or to the degree in which you are familiarized with it; and so does the beauty of all other existences.

2. Turn into plain Burmese prose—

(a) ပဌမရှေးခါ၊ ထိုသတ္တဝါသည်၊ ငါတို့အမျိုး၊ အိုးလည်းမမြဲ၊ ဘေးလည်းမသိ၊ ဘီလည်းမတော်။

(b) ကြားသူလည်းမခံသာ၊ နာသူလည်းကျိုးမရှိ၊ သိသူလည်းဂုဏ်မထင်၊ ခံရသူအရှင်လည်း၊ သဲကျင်နာရှိမတတ်။

(c) ရဲဘော်သားတို့နှင့်၊ ပြားလိုပြား၊ လုံးလိုလုံး၊ ထုံးလိုပင်ချေလိုချေ၊ အထွေထွေအရာရာ။ နာနာဘာဝ၊ ဝိနာဘာဝ၊ စွမ်းနိုင်လှသောကြောင့်။

(d) မဟာသိနွေခုံ၊ ရွှေဘုံထိပ်ဖျားက။ သိကြားမင်းမြတ်နိုး၍၊ ရွှေအိုးကြီးသုံးဂါယတ်၊ လက်ဆုပ်ကိုယ်ကြပ်၊ အိမ်တွင်းသို့လာပြီးလျှင်၊ ဟူပါတော့အပ်သကဲ့သို့။

(e) အချောအနု၊ မပူမမြင့်၊ အခန့်သင့်ကလေး၊ သေးသေးသွယ်သွယ်၊ မငယ်လွန်း၊ မကြီးလွန်း၊ ဇွန်းခြစ်တမျိုး၊ အထိုးခံအုန်းသီး၊ ဘုန်းကြီးကြိုက် မင်းကြိုက်၊ ကာလသားများနှင့်လားလားမျှမထိုက်။

3. Write an essay on any one of the following subjects:—

40

(a) Study of good books exerts intellectual and moral influence upon the mind, and elevates character.

(b) Bodily health—relation between mind and body—benefit of walking and other forms of exercise—self-control important to health—alternate rest and work.

(c) Prevention is better than cure.

ENGLISH.

ALTERNATIVE PAPER.

Paper-setters— $\left\{ \begin{array}{l} \text{RAI LALITMOHAN CHATTERJEE, BAHADUR,} \\ \text{M.A.} \\ \text{T. S. STERLING, ESQ., M.A.} \end{array} \right.$

Examiner—REV. J. DRAKE, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Write an essay on one of the following subjects :— 40

- (a) Home Industries for Indians.
- (b) Self-reliance.
- (c) My first term at College.
- (d) Peace hath her victories.

2. Paraphrase the following passage :— 20

Experienced men of the world know very well that it is best to pay as they go along, and that a man often pays dear for a small frugality. The borrower runs in his own debt. Has a man gained anything who has received a hundred favours and rendered none? Has he gained by borrowing, through indolence or cunning, his neighbour's wares, or horses, or money? There arises on the deed the instant acknowledgment of benefit on the one part, and of debt on the other; that is, of superiority and inferiority. The transaction remains in the memory of himself and his neighbour; and every new transaction alters, according to its nature, their relation to each other. He may soon come to see that he had better have broken his own bones than to have ridden in his neighbour's coach, and that 'the highest price he can pay for a thing is to ask for it.'

3. Give in your own words the substance of the following passage :— 20

'Oh, World God, give me Beauty!' cried the Greek.
His prayer was granted. All the earth became
Plastic and vocal to his sense; each peak,
Each grove, each stream, quick with Promethean flame,
Peopled the world with imaged grace and light.
The lyre was his, and his the breathing might
Of the immortal marble, his the play
Of diamond-pointed thought and golden tongue.
Go seek the sunshine race, ye find to-day
A broken column and a lute unstrung.
'Oh, World God, give me Power!' the Roman cried.
His prayer was granted. The vast world was chained
A captive to the chariot of his pride.
The blood of myriad provinces was drained
To feed that fierce, insatiable red heart.
Invulnerably bulwarked every part
With serried legions and with close-meshed code.
Within, the burrowing worm had gnawed its home.
A roofless ruin stands where once abode
The imperial race of everlasting Rome.

4. Explain and illustrate what is meant by rhythm.

12

Condense the following extract into a metaphor :—

As slow our ship her foamy track
Against the wind was cleaving,
Her trembling pennant still looked back
To the dear isle it was leaving.
So loth we part from all we love,
From all the links that bind us ;
So turn our hearts as on we rove,
To those we have left behind us.

5. Write a brief appreciation of the following lines about the night-
ingale's song :— 8

The voice I hear this passing night was heard
In ancient days by emperor and clown :
Perhaps the self-same song that found a path
Through the sad heart of Ruth, when, sick for home,
She stood in tears amid the alien corn ;
The same that ofttimes hath
Charmed magic casements, opening on the foam
Of perilous seas, in faery lands forlorn.

SANSKRIT.

Paper-setters—{ HON. JUSTICE SIR ASUTOSH MUKHERJEE,
KT., C.S.I., M.A., D.L.
MAHAMAHOPADHYAYA DR. SATISCHANDRA
VIDYABHUSHAN, M.A., PH.D.
BABU MURALIDHAR BANERJEE, M.A.
BABU HARICHARAN GANGULI, M.A.

Head Examiner—BABU MURALIDHAR BANERJEE, M.A.

FIRST PAPER.

Examiners—{ BABU KALIKRISHNA GOSWAMI, M.A.
BABU DEBENDRANATH RAY, M.A.
BABU KUMUDBANDHAB CHATTERJEE, M.A.
BABU HARICHARAN GANGULI, M.A.
BABU SRISCHANDRA CHAKRABARTI, B.A.
PANDIT RAJENDRANATH VIDYABHUSHAN.
BABU KALIKRISHNA BHATTACHARYYA.
MAHAMAHOPADHYAYA PRAMATHANATH TARKA-
BHUSHAN.

To look over answer-papers written in Devanagiri character.

DR. PRABHU DUTT SASTRI, M.A., PH.D.

To look over answer-papers written in Uriya character.

{ BABU KASINATH DAS, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Give in English the substance of the description of either the Himālayas in Kumāra Sambhava, or autumn in Bhaṭṭikāvya. 8
2. Explain in English the allusion in— 6

Either,

(a) असूत सा जागवधूपभोग्यं तेनाकसम्भोनिधिवद्वसत्यम् ।
क्रुद्धेऽपि पक्षिच्छिदि वृत्रशत्राववेदनाच्च कुलिशक्षतानाम् ॥

Or,

(b) देव्याभिभूतस्य युवामखोर्दं मग्नस्य दोर्भिर्भुवनस्य भारम् ।
हवींषि संप्रत्यपि रक्तं तो तपोधनैरिदमभाषिषाताम् ॥

3. Translate into English *any* of the following groups :—

12

A.

- (a) पञ्चदशदिक् पांशुविविक्तवातं शङ्खस्वनानन्तरपृथक् ।
शरीरिणां स्थावरजङ्गमानां सुखाय तज्जन्मदिनं बभूव ॥
- (b) दत्तावधानं मधुलेहिगीतौ प्रशान्तचेष्टं हरिणं जिघांसुः ।
आकर्ण्यन्नुत्सुकहंसनादान् लक्ष्ये समाधिं न दधे संग्राहित ॥

B.

- (a) जगद्योनिरयोनिस्त्वं जगदन्तो निरन्तकः ।
जगदादिरनादिस्त्वं जगदीशो निरीश्वरः ॥
- (b) स पुण्यकीर्तिः शतमन्युकल्यो महेन्द्रलोकप्रतिमां समृद्धया ।
अध्यास्त सर्वर्तुसुखामयाध्यामध्यासितां ब्रह्मभिरिदुबोधैः ॥

4. Give in English the substance of the verses in *one* of the following groups :—

A.

- (a) आवर्जितजटामौलिविलम्बिशशिकोटयः ।
सद्राणामपि मूर्धनः क्षतकुङ्कुमशशिनः ॥
- (b) अन्तर्निविष्टोऽस्त्वलरत्नभासोगवाक्षजालैर्भिनिष्पतत्यः ।
हिमाद्रिदृक्कादिव भान्ति यस्यां गङ्गाम्बुपातप्रतिमा मृद्वेभ्यः ॥

B.

- (a) अभ्युन्नताङ्गुष्ठुनखप्रभाभिर्निक्षेपणाद्भागमिवोद्विन्नन्तो ।
आजहृतुस्तच्चरणौ पृथिव्यां स्थलारविन्दप्रियमव्यवस्थाम् ॥
- (b) अथ पुण्यवयोगान्नेदयत्तु कूरसंस्थं
दक्षयदतिरथेण प्राप्तमुर्वीविभागम् ।
क्षमरहितमचेतस नौरजीकारितदमां
बलमुपहितशोभां सूर्यमायादयोध्याम् ॥

5. (a) Expound *samāsa*s in *any two* of the words underlined in Questions 3 and 4. 4

(b) In how many different ways can you expound the *samāsa* in चत्वारि: in Question 3 B (a) ? 2

(c) Account for the case-endings in *any two* of the following, viz. 2
 सुख (य) in Question 3 A (a), लक्ष्ये in Question 3 A (b), अयोध्याम् in Question 3 B (b), and रथेण in Question 4 B (b).

(d) Parse विषट्चः in विषट्चोऽपि संवर्द्धा स्वयं च तुमसामृतम् . 2

(e) Derive *any four* of the following words :— 4

विपक्विमः, मृगावित्, अर्त्विजिनः, श्रोवस्त्विकः, अध्वनीनः, दव-
 पत्, and देवयज्जीन् .

(f) Conjugate *any four* of the following roots :—चद् in लट् 3rd 4
 person singular, घृ in लङ् 2nd person singular, स्त in 1st person singular, धा in विधिलिङ् 3rd person singular, and वद् in लिट् 2nd person singular.

6. (a) How does Mallinātha defend the forms रात्रिन्दिव in अक्षर 4
 त्रिन्दिवस्य ते or शरौराद्धरा in प्रेक्ष. शरौराद्धरां हरस्य ?

• (b) Translate into English the following passage from Mallinātha's commentary :— 6

पिता न ज्ञायते यस्या आता यदि न विद्यते ।
 नोपयच्छेत् तु तां कन्यां धर्मलापमयात् सुधीः ॥
 इति अजातकुमारपरिणयनिषेधात् प्रकृते पार्वती
 आतृमती एवेति सूचनार्थं मैनाकवर्णनमिति तात्पर्यार्थः ॥

7. Comment upon grammatical peculiarity in *one* of the following :— 3

(a) त्रियम्बकं संयमिनं ददर्श ।

(b) गुणाः पूजास्थानं गृणिषु न च लिङ्गं न च वयः ।

8. Correct *any two* of the following :—

(a) सख्ये नमस्कृत्य पठेत् शास्त्रमुत्तमम् ।

(b) विजित्वा निखिलान् शत्रून् विरेमे रावणस्तदा ।

(c) सीता पद्मपलाशस्त रानेण सह मोदति ।

(d) दध्मे शङ्खं महावीरः काशीराजो महद्भुजः ।

9. Translate into Sanskrit *any five* of the extracts below :— 25

(a) Devadatta has recently performed his son's Upanayana ceremony. He gave much Dākṣhiṇa to Brāhmins on that occasion.

(b) From his sitting constantly at home, and not doing anything, have resulted poverty and many painful diseases.

(c) A very violent storm arose. The sun was invisible, and it appeared as if the wind was going to tear up all trees by the roots.

(d) Viśvāmitra practised austerities for a long time, and at last attained Brāhmanhood through his perseverance.

(e) A Brāhman is he who is ever forgiving, and loves and lives for all.

(f) He went to Benares to bathe in the holy waters of the Ganges, and stayed there two years studying philosophy.

(g) There is a man waiting at the door who wants to speak you on matters of great importance.

SANSKRIT.

SECOND PAPER.

(BABU ABINASCHANDRA GUHA, M.A.

BABU NILMANI CHAKRABARTI, M.A.

BABU LAKSHMINARAYAN CHATTOPADHYAYA,
M.A.

(BABU NALINIMOHAN MUKHERJEE, M.A.

BABU UPENDRANATH RAY, VIDYABHUSHAN,
B.A.

BABU BISHNUPADA BHATTACHARYYA, M.A.

Examiners—{ BABU AKSHAYKUMAR DATTA GUPTA, M.A.
BABU SURENDRANATH DAS GUPTA, M.A.

To look over answer-papers written in Devnagari character.

DR. PRABHUDUTT SASTRI, M.A., PH.D.

To look over answer-papers written in Uriya character.

(BABU KASINATH DAS, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English any two of the following extracts :—

14

(a) स तं ब्रह्मा विस्मितो भूत्वा, प्राज्ञलिः प्रणतो हृतः सर्वैर्मु-
निगणैस्सखासनं कर्त्तव्यमासास । परमासने समासीनञ्च तं परिपूज्य,
तेनानुज्ञातः प्रीयमाणस्सखासनाभ्यासे निषसाद । स महासेजाः
परमेष्ठिनं ब्रह्माणमुवाच,—भगवन् ! कृतं मया परमपूजितं काव्यम् ।
ब्रह्मन् ! स्यापितं मयात्र वेदरहस्यम्, साङ्गोपाङ्गोपनिषदां वेदानां
विस्तरक्रिया दर्शिताः, इतिहासपुराणानामुन्मेषनञ्च कृतम् ॥

(b) स हि विद्वान् विप्रर्षभस्तां वृद्धां क्षुधातीं श्रान्तां रक्षानां तर्पस्त्रिणौ वेपमानां त्वगस्थिभूतां भार्यामुवाच,—अयि शोभने ! सुगोत्रामपि कौटपतङ्गानामपि स्त्रियो रक्ष्याश्च पोष्याश्च । नैवं वक्तुमर्हसि । पत्न्या नरो रक्षितः पुष्टश्च भवति । धर्मकामार्थाः शुश्रूषा कुलचन्ततिः पितृशामात्मनश्च धर्मः सर्वमेव दारेष्वधीनम् । यः पुमान् भार्यारक्षणे ऽत्तमः, स महद्वयशः प्राप्नोति मरकांश्च गच्छति ॥

(c) अथाह्वरात्रे निद्रानिलीकृतेने परिजने विजने शोकपारावार-मपारमुत्तर्त्तुमशक्नुवती सेनानिवेशदेशं निःशब्दलेशं शनैरतिक्रम्य, यस्मिन् रथस्य संवक्ततया तदानयनपलायनश्रान्ता गन्तुमक्षमाः क्षमा-पतिरप्याः, पथ्याकुलाः पूर्वमतिष्ठन्, तस्य निकटवटतरोः शाखायां क्वचिद्वृक्षरीयाद्वेन बन्धनं सृत्तिसाधनं विरचय्य, मर्त्तुकामाभिरामा वाङ्माधुरीविरसीकृतकलकण्ठा साशुकण्ठा व्यसपत् ॥

2. Give an outline in English of the story of राजहंस .

8

3. Expound the *samāsas* in *any two* of the following:—

4

(a) तदाख्यानवरिष्ठं ।

(b) अश्वेनिकाद्युत्तान्तराये ।

(c) हेतिततिहृतिश्रान्ताः ।

4. Give the substance in English of *any two* of the following extracts:—

4

(a) पर्जन्य इव भूतानामयमक्षयोभारतद्रुमः सर्वेषां कविमुष्या-नामुपजीव्यो भविष्यति ।

(b) राजा निठिल-तट-क्षुब्धित-निजवरणाभ्युन्नैः प्रशंसितदैवमां-हात्मेपरमात्मेरभाणि ।

(c) कञ्चन कालं विरचितदैवसमाधिर्गताधिकिष्ठु तावत् ।

5. Translate *any two* of the following extracts into English:—

30

(a) कश्चिद् राज्ञो नित्यं दानरोऽतिभक्तिपरोऽङ्गुलिवको ऽन्तः-पुरेऽप्यप्रतिष्ठितप्रसरोऽतिविश्वासस्थानमभूत् । एकदा राज्ञो निद्रां गतस्य दानरो व्यजनं नीत्वा दायुं विदधाति । राज्ञो वक्षःस्थलोपरि मक्षिका उपविष्टा । व्यजनेन मुहुर्मुहुर्निष्ठिमानापि पुनः पुनस्तत्रैवो-पविशति । ततस्तेन अभाववपलेन सूक्ष्मेण दानरेण क्रुद्धेन सता तीव्रं

खड्गमादाय तस्या उपरि प्रहारो विहितः । ततो मक्षिका उड्डीय गता । तेन श्रितधारेणासिना राज्ञो वक्षो द्विधा जातं राजा मृतश्च ॥

(b) अस्ति हस्तिनापुरे विलाषो नाम रजकः । तस्य गर्दभोऽतिभारवहनाद् दुर्बला सुमूर्धुरिवाभवत् । ततस्तेन रजकेनासौ व्याघ्र-चर्मणा प्रच्छाद्याख्यसमीपे शय्यक्षेत्रे मोचितः । ततो दूरात्तमव-लोक्य व्याघ्रमुद्ग्रा क्षेत्रपतयः सत्वरं पलायन्ते । अयं केनापि शय्यर-जकेन धुसरकम्बलकृततनुत्त्राणेन धनुःकाण्डं सज्जीकृत्यावनतकायेन एकान्तिं स्थितम् । तं च दूराद् दृष्ट्वा गर्दभः पुष्टाङ्गो गर्दभोऽयमिति मत्वा उच्चैः शब्दं कुर्वाणस्तदभिमुखं धावितः । ततस्तेन शय्यरजकेण चित्कारशब्दात् गर्दभोऽयमिति ज्ञात्वा लीलयैव व्यापादितः ॥

(c) कस्मिंश्चिद् वनादेशे श्वरनखरो नाम सिंहः प्रतिवर्षातिष्ठ । स कदाचिदितश्चेतश्च परिश्रमन् क्षुत्तामकण्डो न किञ्चिदपि सत्त्व-मासवाद । ततश्चास्त्रमनसमये महतीं गिरिगुह्यामासाद्य प्रविष्टुश्चिन्त-यासास । नूनमेतस्यां गुह्यायां रात्रौ केनापि सत्त्वेनागन्तव्यम् । तन्नि-भृतो भूत्वा तिष्ठामि । एतस्मिन् अन्तरे तत्स्वामी दधिपुच्छो नाम शृगालः समायातः । स च यावत् पश्यति तावत् सिंहपदपट्टतिर्गु-ह्यायां प्रविष्टा न च निष्क्रामणं गता । ततश्चाचिन्तयत्, अहो ! विनष्टोऽस्मि ॥

6. Form sentences in Sanskrit illustrating the use of *any five* of 10 the following :—

- (a) द्वितीया with the suffix एनप् .
- (b) चतुर्थी with the root क्रूध .
- (c) भा + क्त्स् in the Parasmaipada.
- (d) उ + स्या in the Ātmanepada.
- (e) The causative (णिजन्त) of वि + स्मि .
- (f) The desiderative (सन्त) of दा .
- (g) The frequentative (यङन्त) of क्त्स् .

7. Give *five* of the following forms :—

- (a) द् active voice लट् 3rd person singular.
- (b) दुद् active voice लृट् 3rd person singular.
- (c) दन् active voice लृट् 3rd person singular.
- (d) दद् active voice लिट् 3rd person singular.

(e) ह active voice. हट् 3rd person singular.

(f) + नस् + यप् .

(g) य + कृ + यप् .

8. Translate five of the following into Sanskrit:—

25

(a) A Brāhman, though learned, was very poor. He had a grown-up daughter, and he was very anxious to get her married.

(b) He went to Delhi, lived there for six months, saw many Hindu noblemen, and got about four thousand rupees in jewellery and cash.

(c) Well pleased with the success of the sojourn, he thought of starting for home, but he was advised by his friends at Delhi to avoid a village notorious for its roguery.

(d) The Brāhman started back for his home, and as luck would have it, it was evening when he reached the village. There was a small stream which he easily leaped over.

(e) A woman was cleansing her plates. She thought this man must be a man of substance, otherwise how could he leap over this broad enough stream.

(f) She called the Brāhman, told him that it was evening, and the forest in front was extensive and infested with wild animals, and it would be advisable to pass the night at her home.

PĀLI.

Paper-sellers—{ MAHAMAHOPADHYAYA DR. SATISCHANDRA
VIDYABHUSHANA, M.A., PH.D.
BABU REBATINATH CHATTERJEE, M.A.
„ NALINAKSHYA DATTA, M.A.

FIRST PAPER.

Examiner—BARU MUKUNDA BEHARY MULLICK. M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

A. TEXTS.

1. Translate into English any four of the following extracts, adding notes on the words italicized:—

(a) Karoṭṭha Buddhavacanaṃ, khaṇo vo mā upiḍḍagū,
khaṇṭhītā hi socanti nirayamhi samappitā.
Pamādo rajo sabbadā, pamādānupatito rajo
appamādena vijjāya abbake sallam attano.

(b) So maṃ asamsi: 'chi' ti, ahaṃ, 'emi' ti taṃ vadī,
tassa matthakam akkama purakūlo patitthahim.
Na tassa alikam bhaṇitam yathāvācam akās'aham
saccena me samā n'atthi, esā me saccapārami.

- (c) 'Jīvitam dehi me sāmī, rajjam dassāmi te aham,
karissām' itthikiccañ ca aññam kiñci yathicchitam.
Adūbhatthāya sapatham so tam yakkhiñ akārayi.
'Anehi bhacce sigham' *vuttamattā va sē nayi.*
- (d) Buddhavīra namo *tyatthu* sabbasattānam uttama
yo mam *dukkhā* pamocesi aññāñ ca bahukam janam
Sabbadukkham pariññātām, hetutañhā visositā,
ariyaṭṭhaṅgiko maggo nirodho phusito mayā.
- (e) 'Gopī ca ahañ ca assavā, brahmacariyam Sugate *carāmase*,
jātimaraṇassa pāragā dukhass' antakarā bhavāmase.'
'Nandati *puttehi* puttimā, gomikā gohi tath' eva nandati,
upadhī hi narassa nandanā, na hi so nandati yo nirūpadhi.'

2. Summarize in English:—

7

Either,

The dialogue between Buddha and Dhaniya, the cowherd.

Or,

The dialogue between Buddha and Māra, the Evil One.

3. (a) Give the characteristics of *any four* of the Navangas mentioned in the following couplet:—

4

Suttam geyyam veyyākaraṇam gāthudānitivuttakam
jātakabbutavedallam navaṅgaṃ Satthusāsanaṃ.

(b) Explain fully the metaphor in the following:—

3

Nadīnam api sotāni ayaṃ vāto visosayo
kiñ ca me pahitattassa lohitaṃ n'ūpasussaye.

(c) Explain the allusion in—

2

'Esa mūñjam parihare, dhī-r-atthu idha jīvitam.'

4. Relate briefly in simple Pāli:—

9

Either,

The incidents connected with Vijaya's visit to Ceylon.

Or,

The circumstances that led to Buddhaghosa's voyage to Ceylon.

B. GRAMMAR.

5. Explain and illustrate the uses of *one* of the following case-endings:—

5

catutthi, pañcamī, and sattamī.

6. (a) Comment on the formations of *any four* of the following:—

2

acchi, atṭhā, palavati, pecca, and socare.

(b) Give the passive forms of *any four* of the following:—

2

khā'jī, pivati, suṇāti, vindati, and jahāti.

(c) Construct *two* sentences in Pāli to illustrate the uses of *mā* with the aorist and with the imperative.

2

(d) Construct *two* sentences in Pāli containing correlatives.

2

(e) Derive *ārūyha*, commenting on the formation, and give *three* instances of similar derivation.

2

7. Render into idiomatic Pāli *any three* of the following:— better than, for a long time, from kingdom to kingdom, and step by step.

6

8. How is hiatus prevented in Pāli in vowel sandhis? Give examples to explain your answer. 4

C. TRANSLATION.

9. Translate into Pāli either (a) or (b):—

25

(a) In the days of yore, Surabhi, the mother of cows, was once weeping in the celestial regions. Indra, the king of gods, took compassion on her, and asked her why she wept so bitterly. Pointing to the world of mortals, Surabhi said in reply, 'Look there, O Protector of the worlds! Yonder wretch of a clown is oppressing my weak son with a heavy plough, urging him ruthlessly with a wooden cudgel, in consequence of which my poor child, agitated with agony, is falling on the ground, and is on the point of death. It is for him that I weep in heaviness of heart, and tears trickle down from my eyes. Although I have a thousand children, I feel, O Lord, greater compassion for one that is weak and innocent.'

(b) A sage named Uttanaka practised penance in the Maru region. Not far from his hermitage there was, in the deserts, a sea of sand called Ujjānaka. Under the surface of it lived the demon Dhundhu, bent on the destruction of the world. At the end of the year he heaved a deep sigh and filled the earth and the sky with dust. The sage Uttanaka invited the king Kuvalāśava to destroy him. The king came with his hundred sons and caused the princes to dig the ground where the demon lay concealed. They discovered Dhundhu occupying the southern quarter of the horizon. Enraged at the princes, the demon vomited flames of fire, which consumed ninety of them. Thereupon the king, extinguishing the fire by his Yoga power, attacked him sword in hand, and with one blow cut off his head.

PĀLI.

SECOND PAPER.

Examiner—BABU MAHIMARANJAN BARUYA, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate two of the following extracts into English:—

25

(a) So Himavantato ākāse uppatitvā Tambapannidīpam gantvā tattha Tambapannisare pallale sayamjātasālim khāditvā gacchati, evam gacchanto va 'janapadam gantukāmā atthi, janapadam gantukāmā atthīti' tikkhattum karuṇāya paribhāvitam mānusiṅgācarā bhāsati. Te tassa vacanam sutvā upasamkamitvā añjalim paggayha 'sāmi, mayam janapadam gamissāmā' 'ti āhamsu. 'Tena hi mayham pitthim abhirūhathā' 'ti. Ath' ekacce abhirūhimsu ekacce vāladhim gaṇhimsu ekacce añjalim paggahevā atthamsu yeva. Bodhisatto antamaso añjalim paggahevā tthe sabbe pi te addhateyyasate vāpije attano ānubhāvena janapadam netvā sakasakattāhānesu

patitthāpetvā attano vasanatthānaṃ agamāsi. Tāpi kho yakkhiniyo aññesaṃ āgatakāle te tattha ohinake adḍhateyyasate manusse vadhitvā khādimsu.

(b) Evaṃ me sutam: Ekam samayaṃ Bhagavā Bārāṇasīyaṃ viharati Isipatane migadāye. Tatra kho Bhagavā pañcavaggiyaṃ bhikkhū āmantesi: 'dve' me bhikkhave antā pabbajitena na seviṭṭabbā. Katama dvo. Yo cāyaṃ kumesu kāmasukhallokanuyogo hīno gammo pothujjaniko anariyo anatthasamhito, yo cāyaṃ attakilamathānuyogo dukkho anariyo anattha-samhito, ete kho bhikkhave ubho ante anupagamma majjhimā paṭipadā Tathāgatena abhisambuddhā cakkhukaraṇi nānakaraṇi upasamāya abhiññāya sambodhāya nibbānāya samvattati. Katamā ca sā bhikkhave majjhimā paṭipadā Tathāgatena abhisambuddhā cakkhukaraṇi nānakaraṇi upasamāya abhiññāya sambodhāya nibbānāya samvattati. Ayam eva ariyo atthaṅgiko maggo, seyyath' idaṃ: sammāditthi sammāsāṃkappo sammāvācā sammākammanto sammā-ājivo sammāvāyāmo sammāseṭṭhi sammāsamādhī.'

(c) Evaṃ vutte Vacchagotto paribbājako Bhagavantam etad avoca: 'Seyyathā pi bho Gotama gāmassa vā nigamassa vā avidūre mahā sālārukkho, tassa aniccā sākhāpalāsaṃ palujjeyya, tacapaṭikā palujjeyyūṃ, pheggu palujjeyya, so aparona samayena apagatasākhāpalāso apagatatapaṭikapaṭiko apagataphegguko suddho assa sāre patitthito, evam ev' idaṃ bhoto Gotamassa pāvacaṇaṃ apagatasākhāpalāsaṃ . . . suddhaṃ sāre patitthitaṃ. Abhikkantaṃ bho Gotama, abhikkantaṃ bho Gotama, seyyathā pi bho Gotama nikujjitam vā ukkujjeyya, paticchannaṃ vā vivareyya, mūlhasa vā maggaṃ ācikkheyya, andhakāre vā telapajjotaṃ dhāreyya "cakkhumanto rūpāni dakkhintīti", evaṃ eva bhota Gotamena anekapariyāyena dhammo pakāsito. Es' āhaṃ bhavantaṃ Gotamaṃ saraṇaṃ gacchāmi dhammaṃ ca bhikkhusaṃghaṃ ca, upāsakaṃ maṃ bhavaṃ Gotamo dhāretu ajjatagge paṇupetaṃ saraṇagataṃ ti. Aggi-Vacchagotta suttantaṃ.

2. (a) Derive *uppatitvā* and *paggayha* in the extract (a) in the above, *pothujjaniko* in (b), and *pāvacaṇaṃ* in (c). 4

(b) Name and expound the samāsas in three of the following:— 6
yāvajjivam, *dalhagahitasigālo*, *asaddhammasamannāgato*, *catujātigan-*
dhasamuggaṃ, and *nimmakkhikumadhupatalasādisaṃ*.

(c) Decline three of the following:—*Pumā* in the instrumental case; *cakkhu* in the ablative case; *āyu* in the objective case; and *tumha* in the dative case. 3

(d) Conjugate two of the following roots in the present indefinite (vattamānā) and the aorist (ajjatanī):—*thū*, *cur*, and *gah*. 5

(e) Give the forms in the superlative degree of two of the following,—*yuvā*, *guru*, and *pasattho*. 2

Either,

3. Explain that 'Rebirth is not transmigration.' 6

Or,

Give a summary of what is stated regarding Yasapabbajjā.

4. Relate the incidents leading to Devadatta's malice against Buddha. 7

5. Give in Pāli the substance of the following:— 4

Nibbutā nūna sā mātā, nibbuto nūna so pitā,
nibbutā nūnā sā nārī yassāyaṃ īdiso patīti.

6. Answer one of the following:— 8

(a) What do you understand by the term *Jātaka* ?

(b) Give a summary of the legend regarding Mahosadha's marriage.

7. Translate the following extracts into English :—

30

(a) Atīte Bodhisatto vaṇijjāya jīvikaṃ kappeti. Tādā Kāśirat-
the ekasmim paccantagāme bahū vaḍḍhaki vasanti. Tath' eko
phalita-vaḍḍhaki rukkhān tacchati. Ath' assa eko makaso sise nisi-
ditvā sattiyā paharanto viya sīsaṃ mukhatuṇḍakena vijjhi. So
attano santike nisinnaṃ puttān āha: 'tāta, mayhaṃ sīsaṃ makaso
sattiyā paharanto viya ujjhati, vārehi taṃ' ti. 'Tāta, adhiyāsohi,
ekappahārena naṃ marossamīti.' Atha so vaḍḍhaki puttān āha:
'tāta, imaṃ makasaṃ vārehīti.' So 'vāressāmi tāta' ti tikkhinaṃ
mahāpharasaṃ ukkhipitvā pitu pitthipasse thatvā 'makasaṃ paha-
ressāmi' ti pitu matthakaṃ dvidhā bhindi.

(b) Ath' eko vako Gaṇḍātīre pāsānapitthe vasati. Atha Gaṇ-
gāya himodakaṃ āgantvā taṃ pāsānaṃ parikkhipi. Vako abhirū-
hitvā pāsānapitthe nipajji, n' ev' assa gocaro atthi na gocarāya gama-
namaggo, udakam pi vaḍḍhat' eva, so cintesi: 'mayhaṃ n'eva
gocaro atthi na gocarāya gamanāmaggo, nikkānmasa pana nipajja-
nato upasothakānmaṃ varan' ti manasā va upasothaṃ adhiṭṭhāya
sīlāni samādiyitvā nipajji.

BENGALI.

(For Female Candidates).

Paper-sellers—{ RAI SAHEB DINESCHANDRA SEN, B.A.
BABU JOGINDRANATH BASU, B.A.

FIRST PAPER.

Examiner—MRS. KUMUDINI BASU, B.A.

Candidates are required to give their answers in their own words
as far as practicable.

The figures in the margin indicate full marks.

1. Narrate briefly in simple Bengali prose the principal incidents 10
of the life of Gouranga as depicted in your text.
2. Name any two of the other works of the authors of *Meghnad-* 4
badh and *Pravash*, and mention the names of the Sanskrit works on
which the subject-matters of these two books are respectively based.
3. Define, closely following your text, মহাকাব্য, দৃশ্যকাব্য, and 5
রস; quote any passage from any of your text-books which is remark-
able for প্রসাদবর্ণন.
4. Explain extracts (a) and (b), and any three of the rest, with full 22
reference to their contexts :—

(a) অষ্টীর এমন স্থিতি যেভাবে করিবে দৃষ্টি

দেখ মঙ্গলের ভাবে মঙ্গল সকল ;

অমঙ্গল ভাবে দেখ সব অমঙ্গল ।

কি মজল, অমজল সুখ, দুঃখ যাহা বল
সকলি মানবমনে ; জগত কেবল
সুখময় শোভাময় অনন্ত মজল ।

- (b) মৃত্যু নহে বিভীষিকা ; মৃত্যু আগাময় ;
অমর আত্মার মুখ্য শোধান আগার
ভারি অধিকারে । সে সেধায় নিজ হাতে,
আত্মার দৈহিক শেষ প্রবৃত্তি-ফুলিঙ্গ
নিঃশেষে নিভা'য়ে, আপনার হিমনীয়ে
মুক্তিঙ্গান করাইয়া ; নিরে যার তারে
নব ঐশ্বর্যের দ্বারে শাস্তিমন্ত্র জপি ।
- (c) কর কর্ম, এই গতিপ্রতিকূলে আর
পশুত্ব-জড়ত্ব পা'বে জন্ম জন্মান্তর ।
দেখ বিবর্তন গর্ভে করে আকর্ষণ
জীবে জীব, জলে জন । হইবে অস্তিত
কর্মফলে যে প্রকৃতি আত্মার যখন
সেইরূপ ক্ষেত্রে আত্মা হ'বে আকর্ষিত ।
- (d) রাবণের অল্পনয় পদের প্রহারে
ঠেলি পতিত্রতধর্ম পালিলা মৈথিলী ;
জ্যেষ্ঠ ভক্তিবশে জটা ভরতের শিরে
সে পদ, সে শির পুত পরস্পর মিলি ।
- (e) শাস্ত, শ্রুত, তরঙ্গিত অসীম সাগর
বিরাজিছে মহিমায় ব্যাপি দিগন্তর ;
সত্ত্বরজতম গুণে কেশব যেমতি
বর্ণিবে স্বরূপ তাঁর কাহার শকতি ।
- (f) দূষিত শোণিতপায়ী জলৌকার মত
নিম্নকেরা আমাদের ধাতু সংশোধক ।
নিম্না পরীক্ষার চাপে যে পড়িবে নামি
তাদ স্থিতি ভগ্নরথে শূন্য ধ্বজা সম ।

5. Explain the allusions in :—

3

- (a) কিম্বা বিশ্বাধরা রমা অশুরাশি তলে ।
(b) মুনিগণ স্নানহেতু আনিল গঙ্গায় ।
(c) সঙ্গী সারমেয়ে করিয়াছিলেন রক্ষা সর্ব সমর্পণে ।

6. Translate into English :—

12

এইরূপে সখি! কাটাইলু কত কাল পঞ্চবটী বনে স্থখে।
ননদিনী তব বিষম জঞ্জাল আসি ঘটাইল শেষে। শরমে, সরমা সহি!
মরি লো মরিলে তার কথা; ধিক্ তারে, নারীকুলকালি! চাহিল
মারিঙ্গা মোরে বরিতে বাঘিনী রঘুবরে। ঘোর রোষে সৌমিত্রি কেশরী
খেদাইলা দূরে তারে। আইল ধাইয়া রাক্ষস; তুমুল রণ বাজিল
কাননে। সন্তয়ে পশিলু আমি কুটীর মাঝারে।

7. Account for the ই in সৌমিত্রি and the ঙ্গ in কেশরী in the 5
above extract. Point out the words in the same used with peculiar
significance.

8. (a) Combine in the *sandhi* form the undermentioned words re- 13
ferring to the grammatical rule applicable in each case :—

অহঃ + রাত্রি; মহান্ + শব্দঃ; পিতৃ + আজ্ঞা and পুন্ + কোকিলঃ।

(b) Account for the ণ in প্রণাম, and refer to any exception to
the rule.

(c) Give the opposite genders of—

যবন, করী, সাক্ষী, বিদূষী, and ধোমান.

(d) Put the suffix মৎ, or বৎ after each of the following words
as grammatically befit them :—

প্রজ্ঞা, বিস্ম, and সম্ভাষিত্ব।

(e) Give an example of each of the following :—

একশেষদ্বন্দ্ব, অব্যয়ীভাব and কালাধিকরণ. Define them.

9. Rewrite, correcting all errors :—

5

কালীদাস রাজা বিক্রমাদিত্যের সময়ে উপস্থিত ছিলেন। তাঁহার
কাব্যশক্তির জন্ত রাজা তাঁহার প্রতি স্নেহাভি-ব্যবহারে সর্বদা সন্তোষ
করিতেন। এইজন্য কেহ কেহ কালীদাসকে ইর্ষবশে লাঞ্ছনা করিবার
অবকাশ চাহিতেন।

10. Translate into English one of the following extracts :—

21

(a) মগধের রাজধানী পাটলিপুত্র নগরে আজ শোকোৎসব। অদ্য
মহারাজ মহানন্দের পিতৃশ্রাদ্ধ। রাজবাটীর সুবিস্তৃত প্রাঙ্গণে চন্দ্রা-
তপতলে বিরাট শ্রাদ্ধসভা হইয়াছে। নানা দিগেশ হইতে লোক
জনের সমাগম হইতেছে। সভামধ্যে শাস্ত্রব্যবসারী ব্রাহ্মণবর্গ এক
দিকে সমবেত হইয়াছেন। নানা প্রকার শাস্ত্রীয় তর্কবিতর্ক হইতেছে।
অপর দিকে পাত্রমিত্র সকলে সমবেত হইয়া শাস্ত্রালোচনা গুণিতাছেন।
কোথাও উৎসর্গের নিমিত্ত সজ্জীকৃত অখণ্ডাদি শোভা পাইতেছে;

কোথাও স্বর্ণ ও রজতনির্মিত তৈজসাদি স্মৃধাকিরণে প্রতিকলিত হইতেছে। সাধারণ দর্শকবর্গ সোৎসুকনয়নে চারিদিকে চাহিতেছে। বাহিরে ভট্টগণ তারস্বরে মৃতের গুণগান ও অক্ষয়স্বর্গের কামনা করিতেছে। সর্বত্র কেমন একটা ঐশ্বর্য্য ও ব্যস্ততার ভাব লক্ষিত হইতেছে।

(b) মহারাজ রাজবর্ষের স্বাস্থ্য বাল্যকাল হইতেই ভাল ছিল না। কিন্তু তাহাতে কি? তাঁহার ইচ্ছাশক্তি অদম্য ছিল। তিনি রুগ ও ক্ষীণকায় ছিলেন; তথাপি তাঁহার পাঠালুপ, বৈজ্ঞানিক অনুসন্ধিৎসা এবং প্রজার হিতসাধনেচ্ছা কখনও মন্দীভূত হয় নাই। অধিকন্তু ঐ সকল তাঁহার বয়সের সহিত উত্তরোত্তর বৃদ্ধি পাইয়াছিল। নানা বিদ্যায় সুপণ্ডিত হইয়া স্নায় রাজ্যে অশাসন করিবেন ইহা তাঁহার ঐকান্তিক ইচ্ছা ছিল। এই জন্ত তিনি বাল্যকাল হইতে সেই মঙ্গল-সিদ্ধির উদ্দেশ্যে কঠোর সাধনা করিয়াছিলেন। মন্ত্রণাকুশল স্যর মাধবরাও ও স্যর সলর জঙ্গের জীবনী পাঠেও উচ্চাকাঙ্ক্ষী যুবক অনেক বিষয় শিখিতে পারেন। উপযুক্ত বিদ্যাবুদ্ধি ও ক্ষমতা থাকিলে এবং প্রশস্ত কর্মক্ষেত্র পাইলে এখনও ভারতীয় যুবক কিরূপ রাজনীতিকুশল হইতে পারেন ইহাদিগের জীবনীতে তাহা বেশ জানিতে পারা যায়।

BENGALI.

(For Female Candidates).

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Explain any three of the following extracts :—

30

(a) অগ্নি পরীক্ষা, এক অর্থে উচ্চ পদারূঢ়, উন্নত জীবনের অপরিহার্য্য সঙ্গী। সোণা যেমন আগুনে সম্ভাপিত কিংবা স্ফটিকরূপে অগ্নিপরীক্ষিত না হইয়া মনুষ্যের আভরণ হইতে পারে না; সেইরূপ যাহারা মনুষ্যজাতির সোণা, চিন্তেব উচ্চতা ও উদাত্ততা এবং চরিত্রের অলোকসাধারণ মহত্ব অথবা পবিত্রতার স্বর্ণজাতীয়, তাহারায় অশেষ প্রকারে অগ্নিপরীক্ষার অধীন না হইয়া জগতের নরনারীর আদর্শস্থানীয় হইতে পারেন না।

(b) মনুষ্যের শারীরিক ও মানসিক বৃত্তি সকলেরই সামকালিক যথোচিত স্ফূর্তি এবং উন্নতি মনুষ্যদেহ ধারণের প্রধান উদ্দেশ্য। তবে যাহাতে কতকগুলির অবিকতর পরিপুষ্টি এবং কতকগুলির প্রতি তাক্ষীল্য জন্মে তাহা মনুষ্যের অনিষ্টকর। মনুষ্য অনেক এবং একজন মনুষ্যের সুখও বহুবিধ। তত্ত্ব এবং সাধনের জন্ত বহুবিধ ভিন্ন ভিন্ন প্রকারের কার্যের আবশ্যিকতা। ভিন্ন ভিন্ন প্রকারের কার্য ভিন্ন ভিন্ন প্রকৃতির লোকের দ্বারা ভিন্ন সম্পন্ন হইতে পারে না।

(c) দুঃখের দ্বারা, নিজেকে উপরে না তুলিয়া, নিজেকে অভিভূত করিয়া অতলে ডুবাইয়া দেওয়াই দুঃখের অবমাননা। যাহাকে যথার্থ ভাবে বহন করিতে পারিলেই জীবন সার্থক হয়, তাহা দ্বারা আত্মহত্যা সাধন করিতে বসিলে দুঃখদেবতার কাছে অপরাধী হইতে হয়। দুঃখের দ্বারা আত্মাকে অবজ্ঞা না করি, দুঃখের দ্বারাই যেন আত্মার সম্মান উৎপাদক করিতে পারি।

(d) আমাদিগের এই দুঃস্থ, অধঃপতিত দেশে ক্ষমা, দানশীলতা প্রভৃতি কোমল সদগুণ সকলের যত গৌরব, আয়পরতা, সত্যাচার, বাহুনিষ্ঠা, দৃঢ়প্রতিজ্ঞতা, অধ্যবসায় প্রভৃতি কঠোর সদগুণ সকলের গৌরব তেমন অধিক নহে। কিন্তু যেমন স্ত্রী পুরুষের মিলনেই সংসারের উৎপত্তি এবং সুখ তেমনি ঐ কোমল এবং কঠোর উভয় প্রকার গুণের মিলনেই সংসারের উৎপত্তি এবং ধর্ম। কোমল গুণগুলি কঠোর গুণগুলির অভাবে প্রকৃত পথে থাকিতে পারে না।

2. Translate into English :—

10

বাড়ীর বাহিরের ফটকের কাছে যাইতেই ইউলিসিজের গলার দর শুনিয়া একটি বুদ্ধ কুঁহ লেজ নাড়িতে নাড়িতে তাহার পায়ের কাছে আসিল। ইউলিসিজ চিনিতে পারিলেন সেটা তাহারই পোষা কুঁহ আর্গস। এক সময়ে সে তাহার শিকারের সাথী ছিল তাহার বলবিক্রমই বা কত ছিল ইউলিসিজ তাহাকে আদর যত্নই বা কত করিতেন। ইউলিসিজ যুদ্ধে যাইবার পর তাহাকে কেহ তেমন যত্ন করিত না।

3. Explain, with full reference to their contexts, any three of the following passages :—

15

(a) এই ধ্যান প্রভাবেই এদেশের শিল্পিগণ মৃত্তিকায় বা প্রস্তর প্রতিমার নিকৃপম ভাব প্রকাশ করিতে সমর্থ হইয়াছেন। ইহা হইতেই বুঝা যাইতেছে যে ভারতের শিল্পিগণ কেবলমাত্র শিল্পী নহেন, তাহারা সাধকও বটে। সেই জন্তই ভারতশিল্প ভক্তিপূর্ণ হৃদয়ে বুদ্ধদেবের

ধ্যানমূর্তির পূজা করিয়াছে, কিন্তু কোথাও ধর্ম্মাশোকের মূর্তি স্থাপন করে নাই।

(b) কালের দুর্ভেদ্য অক্ষতমসাবরণে পরিস্ফুটভাবে প্রত্যক্ষীভূত না হইলেও আজিও তাঁহার সেই উজ্জল মূর্তি, সেই ভূতদয়ামধুর জলদ-গভীর স্বর আর সেই অদ্ভুত হৃদয়বক্তার নিঃসন্ধি নিদর্শনরাজী ভারতের পুণ্যক্ষেত্র সমূহ হইতে আবিস্কৃত হইতেছে। নীরব প্রস্তরময় গিরিগাত্রে আজিও তাঁহার অমুভাবজড়িত আদেশবাণী যেন প্রতিধ্বনিত হইতেছে।

(c) তিনি ব্রতপরায়ণা তাপসীর ত্রায় ধরাসনে উপবেশন করিয়া আছেন এবং সন্দেহাত্মক স্মৃতির ত্রায়, পতিত সমৃদ্ধির ত্রায়, স্থলিত শ্রদ্ধার ত্রায়, কলুষিত বুদ্ধির ত্রায় ও অমূলক অপবাদে কলঙ্কিত কীর্তির ত্রায় যার পর নাই শোচনীয় হইয়া বিরাজ করিতেছেন।

(d) কাহারও হস্তে আর্দ্রবস্ত্রখণ্ড দ্বারা আচ্ছাদিত মুখ নারিকেল সম্পূটকে স্নগন্ধি অঙ্গরাগ, কাহারও করে মালতীমালা, কাহারও বা পাণিতলে নিঃশ্বাস মারুত হরণীয়া, নিখোক শুচিবল কল্পলতা দুকূল এবং এক জনের হস্তে লক্ষ্মীর হাস্যাবেশার ত্রায় নির্মলসুন্দর মহাঘ্য হার।

4. Describe, closely imitating the style of your text, Chandrapid's visit to the hermitage of মহাশ্বেতা। 7

5. State what you know about any two of the following :— 6

পত্রলেখা, মহেন্দ্র, পেট্রোগ্লিফ, ক্ষতুপণ and ইউরিক্লিয়া।

6. Form adjectives from গিরি, জটা, and অরণ্য, and abstract nouns from তরুণ, ধনবান, and পতিব্রতা, 3

7. Construct illustrative sentences with the following :— 4

অসূয়াপরবশ, কিংকর্তব্যবিমূঢ়, আপাত মনোরম, and ভীষণ মনোহর।

8. Delive বিদীর্ণ, ভাসমান, বৈপরীত্য, and যুগল। 2

9. Expound the samāsas :— 3

পিতৃসত্যপালনার্থ ; ক্ষণভঙ্গুর and প্রভাতস্নিগ্ধসমীরণাহত।

10. Translate into English :— 20

আমার ঠাকুরটী পূর্বে একটি বিদ্যালয়ে পাঠ করিয়াছিল। যখন আমার ছোট ছেলেটি পণ্ডিত মহাশয়ের নিকট পাঠ বলিয়া লয়, সে দাঁড়াইয়া শুনে এবং ভুল হইলে দুই একটি ধরিয়া দিতে পারে। তাহারই বাপ আমার পিতৃঠাকুরের নিকট চাকুরী করিত। সে লেখাপড়ার কোন ধার ধারিত না। আমার পিতৃঠাকুরের এবং আমার

চাকরের বাপের মধ্যে যে অন্তৰ ছিল, আমাতে এবং আমার চাকরে সে অন্তৰ নাই। অথচ আমার পিতা তাঁহার চাকরের গায়ে হাত তুলিতেন না। আমি আমার চাকরকে মারিলেও মারিতে পারি। অন্ততঃ যদি মারি, আমার সমকক্ষ ব্যক্তি আমার বিশেষ কোন নিন্দা করিবেন, বোধ হয় না।

ASSAMESE.

(For Female Candidates).

Paper-setter and Examiner—BABU LAKSHMINARAYAN
BEZBARUYA. B.A.

FIRST PAPER.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Name the author of *Vanaparba* in Assamese, and any two of the other works by him. 3

2. Explain any two of the following passages, explaining allusions where necessary :—

(a) হেনয় ঈশ্বৰ যিতো অগতিৰ গতি । 5

দেবকীৰ গৰ্ভে আসি ভৈল উতপতি ॥

গোকুলত থাকিলাহা ছৰালৰ ছলে ।

বাঙ্কিল যশোদা তাক ভকতিৰ বলে ॥

(b) শকুনি বোলন্ত আবে আদেশ নৃপতি । 5

শুনা যেন কহোঁ মহি উত্তম যুগুতি ॥

যজ্ঞ কৰিলন্ত যুধিষ্ঠিৰ নৃপবৰ ।

বহিল থিয়াতি তেবে চল দিবাকৰ ॥

(c) তোমাৰ কটাক্ষ দৃষ্টি পায়৷ নৃত্য কৰে মায়া, 5

ভৰি তুলি মৰ্দে মোৰ মাথা,

পৰম আতুৰ হয়৷ তোমাত শৰণ লৈলোঁ,

মায়াক নিবাৰা জগন্নাথ ॥

3. Write explanatory notes on :—

10

বাধাসুত, গঙ্গাসুত, শকুনি, যাজ্ঞসেনী, ইন্দ্রপ্ৰস্থ, দুঃশাসন,
বৃকোদৰ, ধনঞ্জয়, পাণ্ডপত, বৃষভ-বাহন ।

4. Translate into English :—

15

হৰেচিয় সকলোপৰা নিচেই নিশকতীয়া আৰু শাৰীৰিক দুৰ্বল লৰা আছিল। তেওঁৰ ইচ্ছা অনুযায়ী, পিতাকে যেতিয়া তেওঁক মোমায়েকৰ লগত নাবিক জীৱন যাপন কৰিবলৈ আগ বঢ়ায়, তেতিয়া কেপ্টেইন মৰিচে এনে ভাবে হে উত্তৰ পঠালে যে, বপুৰি হৰেচিয়ই নো কি অপৰাধত তেনে কৰুৱা জীৱনৰ বাট ধৰিবলৈ বাধ্য হ'ল। হৰেচিয়ৰ নিচিনা নিশকতীয়া আৰু টিলা বান্ধৰ লৰাৰ পক্ষে কঠিন পৰিশ্ৰমৰ নাবিক জীৱন যাপন কৰাটো অসম্ভৱ; এতেকে তেওঁক ঘৰতে ৰাখি আন এটি লৰাক পঠোৱা হে উচিত।

5. Give derivations of the following :—

4

সনাতন, দানৱ, দৈত্য, ব্যাঘ্ৰ।

6. Give different significations, if any, of the following :—

6

মুনি and ঋষি, জায়া and সহধৰ্ম্মিনী, দ্বিজ and ব্ৰাহ্মণ।

7. Expound the following *samāsas* :—

4

কৃষ্ণকথা, সংসামাগৰ, সিংহযান, কাঠচিঠীয়া।

8. Rewrite the following, correcting the errors :—

8

ময় বেজেৰ-ৰা মনে তলক মূৰ কৰি অকলে অকলে আলিবাত্তেদি গই আছিলোঁ। এটা গম্ভীৰ দুঃখৰ আসন্নাই মোৰ গোটেই হৃদয়টো আবৰিত কৰি থৈছিল; নিবশত গোটেই শৰিৰ অবশন্ন আৰু কেনিও দেখিবৰ মন নগৈছিল।

9. Give the opposite genders of :—

5

দেউতা, নটুৱা, তাপস, সৰ্গদেও, ভোমোৰা।

10. Construct five sentences in Assamese, using at least one of the following words in each :—

5

মাঁদৈ, প্ৰত্যাখ্যান, বিশ্বাস, বস-চোৰ, মাটি-চপৰীয়া, মৃগ-নয়না, বজ্জল, হৰিভৰ।

11. Render into English any two of the following passages :—

(a) উচিত সীমাৰ ইপাৰ বা সিপাৰ হলে, সকলো শক্তিৰ অনিষ্ট ঘটে। বোধ বা অনুভৱ শক্তিক সৰ্বমূলি কাৰ্য্যত নলগালে সি স্বাভাৱিক বল হেৰুৱাই মানুহক কৰুৱা কৰি তোলে, আৰু উচিত সীমা পাৰ কৰি, বা অতিচাৰ বাৱহাৰত লগালেও তাৰ বল ক্ষয় হয় আৰু সি মানুহৰ অনিষ্ট ঘটায়। আনন্দত বৰকৈ উত্তলা হোৱা বা বেজাৰত অতিকৈ অধীৰ হোৱা মানুহে আপোনাৰ অনিষ্ট আপুনি ঘটায়।

15

(b) হোৱাং নামে এজন “মিল” বা কাঠ-ফলা কল চলাই খোৱা 15
ব্যবসায়ী আছিল; তেওঁ বৰ অৰ্থপিপাসু মানুহ। তেওঁৰ দৰে অৰ্থৰ
নিমিত্তে পৰি-মৰা মানুহ পাবলৈ নাছিল। বাস্তৱতে নিজৰ আকাঙ্ক্ষাৰ
জোখাং হোৱাং চহকী নাছিল; তেওঁৰ সম্পত্তিৰ ভিতৰত এটা কাঠ-
ফলা কল আছিল, সেয়ে তেওঁৰ জীৱিকা আৰ্জ্জৰ এক মাত্ৰ উপায়।

(c) আমাৰ ভিতৰত কোনেও এনেকুৱা এটা পোক আগেয়ে 15
কেতিয়াও দেখা নাছিল। সেই কাৰণে ইয়াক দেখি আমাৰ সকলোৰে
ভয় লাগিল। আমি ভয়ত চিয়ঁৰি কবলৈ ধৰিলোঁ—“এই ভয় লগা
জন্তুটোক খোটালিটোৰ পৰা উলিয়াই দে।” কিন্তু ভয়ত কেৱে কাষ
চাপিব নোৱাৰিলে।

ASSAMESE.

(For Female Candidates).

SECOND PAPER.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Comment on the appropriateness of the words underlined in 7
the following extract :—

স্বত্বধাৰ। (নেপথাৰ ফাললৈ চাই) আইদেও, যদি সাজ পিকোৱা
হল, তেনেহলে এই পিনে আহোক।

নটী। (প্ৰবেশ কৰি) দেউতা, এই মই আছোঁ।

2. Point out wherein Kalidasa deviates in the subject-matter of 6
his drama *Sakuntala* from the story as given in the *Mahabharat*.

3. Quote the words of দুষ্যন্ত as far as possible, where he is giving 5
description of Sakuntala's beauty to বিদুষক।

4. Explain the allusion in the following :— 5

সাৰথি। (ৰাজ্যলৈ আৰু পহুটোলৈ চাই) সৰ্গদেও! মই এই
কৃষ্ণসাৰ পহুটোলৈ, আৰু শুণ-লগোৱা ধনুৰলৈ তাৰ পাচত খেদা দিয়া
সৰ্গদেওলৈ চকু দি, মৃগকপ ধৰা যজ্ঞক খেদি যোৱা সাক্ষাৎ মহাদেৱৰ
নিচিনা দেখিছোঁ।

5. Give in your own words the estimate you have formed of the 6
character of দুষ্যন্ত after his return to his capital, in his behaviour

towards Sakuntala, apart from the consideration of the circumstance of the curse under which he laboured.

6. Translate into English :—

10

কাণ্ডপ । হে ওচৰত থকা ভপোবনৰ বৃক্ষসকল ! যি, তোমা-
লোকে পানী নেখালে আগেয়ে পানী খাব নোখোজে, যি আভৰণ-
প্ৰিয় হৈও মৰমত তোমালোকৰ পাত এটি নলয়, আৰু তোমালোকৰ
প্ৰথমে ফুল ওলোৱাৰ সময়ত যাৰ মহা উৎসৱ হয়, সেই এই শকুন্তলা
আজি গিৰিয়েকৰ ঘৰলৈ যায়, সকলোৱে বিদায় দিয়াঁহঁক ।

7. State which of the acts in the *Sakuntala* you like most, and why ? 5

8. Expound the following *śamāsas* :—

10

অভয়দান-যজ্ঞৰতী, বিজয়-যাত্ৰা, মদিৰেক্ষণে, মদন-বাণহত, কৰ
ভোক, লতামণ্ডপ, টিকিৰি-তুলা, সংসাৰ-নিষ্পৃহ, বেদবিহিত, নষ্টস্মৃতি ।

9. Explain the following :—

10

সপ্তপৰ্ণবেদী, পৰিগ্রহ, কৌকুমোকাণ্ডি, ত্ৰিশঙ্কু, শশাঙ্কলেখা,
বিশাখাতৰাহাল, মণিবন্ধ, চুত-মঞ্জৰী, কঙ্কী, অপ্সৰাঘাট ।

10. Give in your own words in English the purport of the follow- 6
ing :—

চাৰি সাগৰে বেৰি থোৱা পৃথিৱীৰ অনেক কাল সন্তানী চৈ,
দৃশ্যস্তৰ পৰা হোৱা তোমাৰ প্ৰতিদন্দীশূন্য পুত্ৰক সিংহাসনত বহুৱাই,
আৰু গিৰিয়াই পৰিজনবিলাকৰ ভাৰ পোৱাৰ হাতত অৰ্পণ কৰিলে,
তুমি তেওঁৰে সৈতেই আহি আকৌ এই শাস্তিময় আশ্ৰমত বাস
কৰিবাহি ।

11. Render into English any two of the following :—

(a) অতি অলপ সময়ৰ পাচতে গৃহস্থ আৰু গৃহীণী উভতি যথাস্থানত 15
উপস্থিত হ'লগৈ । দুয়ো আনন্দত উলাহিত হৈ, যিমান সোনকালে
পাৰে পাৰেৰে ঢাকনিখন লুটিয়ালে । কিন্তু হায়, পোহনীয়া দুবা-
কাঙ্ক্ষাৰ ফল কি পোৱা গল ?—লাভৰ ভিতৰত, জীৱিকাৰ একমাত্ৰ
উপায় “ মিলটি ” ও মাটিত উভলি পৰি অসুখীয়া ব্যৱসায়ীক জীয়াতে
মৰা কৰিলে ।

(b) আমাৰ ইয়াত এটা জনবৰ আছে যে মিষ্টৰ গ্লেডষ্টোন তৃতীয় 15
শ্ৰেণীৰ গাড়ীত হে ফুৰিছিল । কিন্তু বিলাতৰ তৃতীয় শ্ৰেণী আৰু ইয়াৰ
তৃতীয় শ্ৰেণীৰ মাজত ঢেৰ ভিন, যদিও অবশ্যে গ্লেডষ্টোনৰ দৰে মানুহৰ
তাতো তৃতীয় শ্ৰেণীত ফুৰাটো এটা আচৰিত আৰু গোৰৱৰ কথা ।
তাত তৃতীয় শ্ৰেণীত ফুৰাটোৱেই নিয়ম, প্ৰথম আৰু দ্বিতীয় শ্ৰেণীত
তাকৰ ভাগ মানুহ হে হুবে ।

(c) কালত ডাঙ্গৰীয়াৰ পত্নীয়ে এটি স্তূলক্ষণীয়া পুল সন্তান প্ৰসব কৰিলে। মাকে লৰাটিৰ নাম থলে চাওফ্ৰুং। মৰাণনীৰ গৰ্ভজাত ডাঙ্গৰীয়াৰ সন্তান দিনক-দিনে ডাঙ্গৰ হৈ আহিল। চাওফ্ৰুংৰ বয়স ষোল্ল বছৰত সোমাল। চাওফ্ৰুংে এতিয়া মৰাণ কুলৰ বৃত্তি অল্পসৰি বজাৰ ঘৰত খৰি যোগাব লগা হল। তাহানি তেওঁৰ পিতৃয়ে দি যোৱা উপদেশ মনত ৰাখি তেওঁ নিতৌ বজাৰ ঘৰত খৰি যোগাবলৈ ধৰিলে।

15

ARABIC.

Paper-setters—{ SHAMSUL-ULMA ABU NASR MUHAMMAD
WAHEED, M.A.
MAULAVI MD. IRFAN, M.A.

FIRST PAPER.

Examiner—SHAMSUL-ULMA ABU NASR MUHAMMAD
WAHEED, M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Translate into English *any one* of the following :—

13

(a) قالوا يا ابانا انا ذهبنا نستبق وتركنا يوسف عند متاعنا
فاكله الذئب وما انت بمؤمن لنا ولو كنا صادقين * وجاءوا
على قميصه بدم كذب - قال بل سئلت لكم انفسكم امرا - فصبر
جميلا - والله المستعان على ما تصفون * وجاءت سيارة فارسلوا
واردهم - فادلى دلو - قال يا بشرى هذا غلام - و اسروه بضاعة -
والله عليم بما يعملون * و شرره بئس بئس دراهم معدودة -
وكانوا فيه من الزاهدين *

(b) و اوجى الى نوح انه لن يؤمن من قومك الا من قد امن
فلا تبتئس بما كانوا يفعلون * و اصنع الفلك باعيننا - ولا تخاطبني

فى الذين ظلموا - انهم مغرورون * ويصنع الفلك وكلما مر عليه
ملا من قومه سخروا منه - قال ان تسخروا منا فانا نسخر منكم
كما تسخرون * فسوف تعلمون من ياتيه عذاب يخزيه و يحل
عليه عذاب مقيم * حتى اذا جاء امرنا و فار التهور - قلنا احمل
فيها من كل زوجين اثنين و اهلك الا من سبق عليه القول
و من امن - و ما امن معه الا قليل *

2 (a) Parse the underlined words in (a) or (b) of Question 1. 8

(b) Give the تعلييل of مستعان - تصفون - امن. - قلنا يحل - 10

3 Translate into English one of the following:— 12

(a) حكى ان حية دخلت تحت سرير كسرى فارادوا قتلها
فنهالهم عنه و امر بعض مقدمية ان يتبعها فجاءت الى بئر و صارت
تنظر الى البئر و الى الرجل فعلم الرجل مرادها فغظ في البئر
فراى حية مقتولة و فوقها عقرب فعمد الرجل الى العقرب و قتله
فاقبلت الحية على كسرى و القت من فمها بين يديه بذرا
فزعه كسرى فذبت منه الريحان الفارسى و كان كسرى كثير
الزكام فاستعمله فنفعه و برا منه و الله اعلم *

(b) حكى ان انسانا هرب من اسد فوقع فى بئر - و وقع الاسد
عليه - فراى الاسد فى البئر دبا - فقال له الاسد كم لك ههنا -
فقال له منذ ايام و قد قتلنى الجوع - فقال له دعنا ناكل هذا
الانسان فذكفنى الجوع - فقال له اذا عاودنا الجوع مرة اخرى
فماذا نصنع - و لكن الاولى انذا نحلف له ان لا نؤذيه فيحتال
فى خلاصنا لانه اقدر منا على الحيلة - فكلغا له - فاحتال
حتى خلاص و خلاصهما - فكان نظر الدب اكمل من نظر الاسد *

4. Give vowel-signs (اعراب) to passage 3 (b) printed above. 10
 5. Give the singular or plural, as the case may be, of the following :— 7

- جفّة - بذّر - سرّير - ريحان - قم - دراهم - قميص - كسرى - سيارّة
 - عصا - تدين - عصي - خيلة - اسد

6. Answer any three of the following :— 10

- (a) Define غير المذموم and give examples.
 (b) Enumerate the various kinds of مفعول with examples.
 (c) Give the characteristics of باب انفعال and باب تفعيل.
 (d) Define حال and give examples.
 (e) Enumerate الحروف المشبهة بالنعل and state their use.

7. Correct the following :—

10

قيل لما حبط آدم من الجنة الى الارض لم يكون فيه غير
 النسر فى البر والهوت فى البحر وكان النسر تأوى الى الهوت
 ويبيت عنده - فلما رأى النسر آدم اتى الى الهوت وقال لها
 قد وجدت اليوم فى الارض من تمشي على رجليها ويبطش
 بيديها - فقالت له الهوت ان كنت صادقة فما لنا منها ملجأ لا
 فى البر ولا فى البحر فافترقوا من هذه الوقت *

8. Translate into Arabic any two of the following :—

20

(a) Without a doubt Ibrahim's carpets were the finest woven in Algiers.

His house was by no means so dim and dark as it looked from the outside.

No two carpets woven by Ibrahim were ever exactly alike.

Algiers has a delightful climate and tourists flock there to avoid the cold winters of the north.

(b) He was only fourteen when his father died. The empire was ruled in his name by one of the ministers of his father. When he reached the age of eighteen, he took the management of the kingdom into his own hands. When he came to the throne the empire was very small. When he died he left to his successor a vast empire.

(c) Life is but an empty dream.

Fear of God is the beginning of wisdom.

To rise early is beneficial to health.

A desire to succeed often produces success.

We ought to do as we are done by.

ARABIC.

SECOND PAPER.

Examiner—MAULAVI MD. MUSA, B.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate any two of the following into English :—

15

(a) فلما اراد الله ان يبعث ابراهيم حجة على خلقه ورسولا الى عباده ولم يكن فيما بينه وبين نوح نبي الا هود و صالح فلما تقارب زمان ابراهيم اتى اصحاب النجوم نمrod - فقالوا له انا نجد غلاما يولد في قريتك هذه يقال له ابراهيم - يفارق دينكم - ويكسر اصنامكم في شهر كذا من سنة كذا - فلما دخلت السنة التي ذكروا حبس نمrod الحبالي عنده الا ام ابراهيم - فانها لم يعلم بحبلها لانه لم يظهر عليها اثره فذبح كل غلام ولد في ذلك الوقت - فلما وجدت ام ابراهيم الطلق خرجت ليلا الى مغارة كانت قريبا منها فولدت ابراهيم واصلحت من شأنه ما يصنع بالمولود *

(b) فلما رفوعة على راس الغيران رفع راسه الى السماء وقال اللهم انت الواحد في السماء وانت الواحد في الارض حسبى الله ونعم الوكيل وعرض له جبرئيل وهو يوثق فقال لك حاجة يا ابراهيم فقال اما اليك فلا - فقدفوة في النار فناداها - فقال يا ناري كوني بردا وسلاما على ابراهيم وقيل ناداها جبرئيل - فلولم يتبع بردها سلام لمات ابراهيم من شدة بردها - فلم يبق يومئذ نار الا طفئت ظفئت انها هي *

(c) فجرد شهاب الدين من عسكرة سبعين الفا وقال اريد هذه الليلة تدورون حتى تكونوا وراء عسكر العدو - و عند صلاة الصبح تاتون انتم من تلك الناحية وانا من هذه الناحية - ففعلوا ذلك و طاع الفجر - و من عادة الهند انهم لا يبرحون من مضاجعهم الى ان تطلع الشمس - فلما اصبحوا حمل عليهم عسكر المسلمين من كل جانب و ضربت الكوسات فلم يلتفت ملك الهند الى ذلك وقال من يقدم على انا هذا و القتل قد كثر فى الهند و انصر قد ظهر للمسلمين *

5 and غير منصرف (a) Point out all the proper names which are غير منصرف in the above extract (a) of Question 1. Give grammatical reasons in each case.

(b) Correct the following:—

5

فعل يحبا كثيرا فيها من دقيق الحيل - رغبت اليه الملوك الذي كانوا فى ناحيته - جاء القوم الا زيدا - عندي سبعين كتابا - ان فيه نفع *

Either,

5 (c) Give the peculiarities of باب in the verbs underlined below:—

اني استعذبت كلامك - فانه لا يزال يستذلهم ويستقلهم -
والذي يستخرج السم من ناب الحية فليس الذنب
للحية - اخرج زيد كتابا *

Or,

Give the singular or plural of the following nouns:—

خرائق - مكاييد - تمثال - ثور - محاسن - مساوي - فضلاء -
فواضل - مقادير - لوامع - حوافر - حيلة - غراب - زمان - دهر *

3. (a) Explain:—

10

فالحكمة كنز لا يفنى على انفاق - وذخيرة لا يقرب لها
بالاملاق - وحلة لا تتخلق جدتها - ولذة لا تصرف مدتها - ولئن
كنت عند مقامي بين يدي الملوك امسكت عن ابتدائه
بالكلام فان ذلك لم يكن مني الا لهيئته والاحلال له ولعمري
ان الملوك لاهل ان يهابوا - لا سيما من هو فى المنزلة التى
حل فيها الملك من منازل الملوك قبله - وقد قالت العلماء
الزم السكوت فان فيه سلامة وتجنب الكلام الفارغ فان
عاقبته الندامة *

(b) Write short notes on—

10

تاج الدين - نمرود - برزويه - كليله ودمنة *

4. Translate any two of the following into English:—

15

(a) قد قالت العلماء ونطقت الحكماء ان الدين بالملك
والملك بالجند والجند بالمال - والمال بعمارة البلاد - وعمارة
البلاد بالعدل فى العباد - فالملوك القدماء احترزوا عن الجور
والظلم لانهم علموا ان الرعية لا تثبت على الجور وان البلاد
والاماكن تتخرب اذا استولى عليها الظالمون - ويتفرق اهلها
ويهربون الى ولايات غيرها - ويقع النقص فى الملك ويقل
فى البلاد الرجل وتخلو الخزائن من الاموال ويتكدر عيش الرعايا
لانهم لا يحبون ظالما ولا يزال دعاؤهم عليه متواترا - فلا يتمتع
الملك بمملكته *

(b) انه كان فى قديم الزمان ملك كثير الجند والاعوان

15

وصاحب جلاء و اموال ولكنه بلغه من العمر مدة ولم يرزق ولدا

ذَكَرًا وَكَانَ ذَلِكَ سَبَبًا لِمَلَالِهِ وَفِكْرِهِ - فَتَوَسَّلَ بِالنَّبِيِّ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ إِلَى اللَّهِ تَعَالَى أَنْ يَرْزُقَهُ بَوْلَدَ ذَكَرٍ حَتَّى يَرِثَ الْمَلِكَ بَعْدَهُ - فَسَمِعَ اللَّهُ دَعَاءَهُ وَرَزَقَهُ بَوْلَدَ ذَكَرٍ فَتَرَبَّى ذَلِكَ الْغُلَامُ إِلَى أَنْ بَلَغَ مِنَ الْعُمُرِ خَمْسَ سِنِينَ وَكَانَ عِنْدَ ذَلِكَ الْمَلِكِ رَجُلًا حَكِيمًا - مَعْلَمًا الْحِكْمَةَ وَالْأَدَبَ إِلَى أَنْ صَارَ ذَلِكَ الْبَوْلَدُ كَامِلًا فِي الْعِلْمِ وَالْأَدَبِ وَالْفَهْمِ - فَشَكَرَ اللَّهُ أَبَوَهُ لِذَلِكَ وَجَعَلَ ابْنَهُ خَادِمًا لِلْحَرَمَيْنِ الشَّرِيفَيْنِ زَادَهُمَا اللَّهُ شَرَفًا فَلَمَّا مَاتَ الْمَلِكُ رَجَعَ الْإِبْنُ إِلَى مَلِكِهِ وَصَارَ خَلِيفَةً لِأَبِيهِ *

(c) قَالَ الْعَامِرِيُّ (اسْمُ رَجُلٍ) أَخْبَرَنِي يَا مُحَمَّدُ إِلَى مَا تَدْعُو؟ قَالَ ادْعُوا إِلَى عِبَادَةِ اللَّهِ وَحَدَّةٍ لَا شَرِيكَ لَهُ وَإِنْ لَا تَشْرِكْ بِاللَّهِ وَتُؤْمِنُ بِكِتَابِ اللَّهِ وَرَسُولِهِ وَتُصَلِّيَ الصَّلَوَاتِ الْخَمْسَ وَتُصُومَ شَهْرَ رَمَضَانَ وَتُؤَدِيَ زَكَاةَ مَالِكَ وَتُحَاجَّ الْبَيْتَ إِذَا وَجَدْتَ إِلَيْهِ سَبِيلًا وَتُؤْمِنَ بِالْمَوْتِ وَبِالْبَعْثِ بَعْدَ الْمَوْتِ وَبِالْجَنَّةِ وَالنَّارِ - قَالَ الْعَامِرِيُّ يَا مُحَمَّدُ فَإِذَا فَعَلْتَ ذَلِكَ فَمَا لِي - قَالَ النَّبِيُّ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ جَزَاءُ عَدْنٍ تَجْرِي مِنْ تَحْتِهَا الْأَنْهَارُ خَالِدِينَ فِيهَا وَذَلِكَ جَزَاءُ مَنْ تَزَكَّى *

5. Translate into Arabic either (a) or (b) :—

(a) A lion, fatigued by the heat of a summer day, fell fast asleep in his den. A mouse ran over his mane and ears and woke him from his slumber. He rose up and shook himself in great wrath and searched every corner of his den to find the mouse. A fox seeing him said, 'A fine lion you are to be frightened of a mouse.'

(b) Contentment with our lot is an element of happiness. Knowledge is a great power. Act, but do not boast. Happy is the man who learns from the misfortunes of others. Every one is more or less master of his own fate. Do nothing without regard to the consequences. One who is ungrateful to man is ungrateful to Allah.

PERSIAN.

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FIRST PAPER.

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MAULAVI KHALIL AHMED.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English :—

10

طریدی بنارود زنگی نمود * که بر نقطه پرگار تنگی نمود
بچالشگری سوی اوراندرخش * برابر سیه خنده زد چون درخش
چنان زد برو ناچرخ نه گره * که هم کالبد سفته شد هم زره
بیک باد شد کشتی خصم خرد * فروماند لشکر پلنگر بمرد
بفرمود شه از بربارگی * که لشکر بجنبد بیکبارگی
سپاه از دوسو جنبش انگیختند * شب و روز با هم در امیختند
ز بیم چقاچق که آمد ز تیر * کفن گشت در زیر جوشن حریر
ترنگا ترنگ درخشنده تیغ * ز ماهی ورقها برآورد میغ

With reference to the above context explain the following in Persian or English :— 4

(a) که بر نقطه پرگار تنگی نمود

(b) کفن گشت در زیر جوشن حریر

2. Translate into English any two of the following quotations, explaining the ideas contained in them :— 6

(a) همه راه اگر نیست بیفنده کور

ادیم گوزنست و کیمنت کور

(b) درستی بود زخمها را بخون
و لی زخمگه موی ناود برون
(c) از هرکه بد آید طمع نیک مدارید
خاصیت کافور مجوئیبد ز نفل

3. Answer the following with reference to the above extracts in Questions 1 and 2:—

(a) Give the force of the final ی in the following words:— 3

طریدي - زنگي - چالشگري - بيکبارگی - تنگی - درستی

(b) Account for گاف in بيکبارگی. What is the force of الف in 3
ناخن نه گره Parse ? ترنگا ترنگ

4. Answer any one of the following in your own Persian:— 6

(a) Write notes on خاقان چین - سکندر - دارا.

(b) Give the substance of نامه سکندر بخاقان چین.

5. Translate into English:— 10

(a) شب از بهر آسایش تست و روز

مه روشن و مهر گیتی و روز

هر از برای سوگراش وار

همی گستراند بساط بهار

اگر باد و برف ست و باران. و میخ

و گر رعد چوگان زند برق تیغ

همه کارداران فرمانبرند

که تخم تو در خاک می پرورند

(b) چون بسوی کعبه حاجات داری روی دل

حاجتی داریم حاجتمند را حاجت برآر

هدهدی تاج کرامت بر سر حال سبا

گر مجالی باشدت پیش سلیمان عرضه دار

(c) باد او چون باد عيسى دكلشا و روح بخش

آب او چون آب كوثر غم زداى و سازگار

(d) پنديكه بقول آيدت اول تو بفعل آر

ورنه نمود هيچ موثر دم قائل

Explain the allusions contained in the lines commencing with 4
باد او چون باد عيسى and هدهدى تاج كرامت in the above extracts.

6. Answer any one of the following:— 4

(a) Mention with examples the various ways of forming تصغير.

(b) Give مضارع or مصدر حاصل of the following:—

انداختن - بالیدن - پختن - تافتن - چكیدن - دیدن - زدن - نمود

7. Translate into English:—

A.

فقالت البطة اعلمي ايها الطائسة اني في هذه الجزيرة 20

طول عمري آمنة لا ارى مكروها - فذمت لينة من الليالي

فرايت في منامي صورة ابن آدم وهو يخاطبني واخطبه -

وسمعت قائلا يقول ايها البطة احذري من ابن آدم ولا تغري

بكلامه ولا بما يدخله عليك فانه كثير الخيل و الخداع -

فاحذر كل الحذر من مكرة - فانه مخادع ماهر - كما قال

فيه الشاعر *

يعطيك من طرف اللسان حلوة

ويروغ منك كما يروغ الثعلب

واعلمي ان ابن آدم يحتال على الحيتان فيخرجها من البحار

- ويرى الطير ببندقة من طين ويوقع الفيل بمكرة - و ابن ادم

لا يسلم احد من شرة - ولا ينجو منه طير ولا وحش - وقد

بلغتك ما سمعته عن ابن آدم - فاستيقظت من منامي
خائفة مرعوبة *

B.

Either,

10 لان عنده شيئاً يسميه الحزام فيشده على بطني - وشيئاً
يسميه الطفر فيجعل له تحت ذنبي - وشيئاً يسميه اللجام
فيجعل في فمي - ويعمل لي منخاساً يخسني به - ويكلفني
ما لا اطيع من الجري - و اذا عثرت لعذني - و اذا نهقت
شتمني - وبعد ذلك اذا كبرت ولم اقدر على الجري
يجعل لي رحلاً من الخشب *

Or,

وقال بلسان فصيح ايها الملك الجليل صاحب الباع الطويل -
اسعد الله مساك و مساك - وزاد في شجاعتك وقواك -
اجرني مما دهاني - وبشرة رمانى - لانى ما وجدت لي
نصييراً غيرك - ثم ان النجار وقف بين يدي الاسد - وبكى
واشتكى - فلما سمع الشبل بكاءه وشكواه - قال له اجرتك
مما تخشاه *

8. Answer any two of the following:—

8

(a) Rewrite any one of the extracts in Question 7 (b) with vowel-points.

(b) Account for اعراب of the following words with reference to the extracts in Question 7:—

طول - قائلاً - الطير - مرعوبة - فصيح - الجليل - نصيراً -
منخاساً *

(c) Analyze:— ويروغ منك كما يروغ الثعلب

9. (a) How is امر حافر معروف formed in Arabic? Inflect the same 6
from تعود or تكرم. Give vowel-points also.

(b) Inflect مضارع معروف with لم or لن from بكى or نام. 4

(c) Enumerate افعال القلوب or افعال المدح والذم 2

PERSIAN.

SECOND PAPER.

Examiners—{ MAULAVI MD. IRFAN, M.A.
MAULAVI ABDULLA ABU SAYED.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English :—

10

در اخبار آمده که خسرو پرویز را سپه سالاری بود به لشکر
کشی و دشمن کشی معروف و مذکور و بمتانت رای و وقوف
عزم در اطراف مملکت موصوف و مشهور مقرب ملک و عمده
ممالک بودی و خسرو پرویز از صواب دید او عدول ننمودی
وقتی صاحب خبران بسمع ملک رسانیدند که سپه سالار شما از
جاده فرمانبرداری انحراف خواهد ورزید و سبیل عذاب و عصیان
و طریق سرکشی و طغیان مسلوک خواهد داشت پیش از آن
که آنصورت از قوه بفعل آید بتدارک آن اشتغال باید نمود
خسرو ازین خبر اندیشه مند شد و گفت اگر او عذاب عزیمت
از روی مخالفت بطرفی از اطراف مملکت بگرداند بسیاری
از اعیان لشکر و سران سپاه با او راه موافقت پیش گیرند و ممکن
که از آوازه بلخی شدن او قصوری در ارکان ملک پدید آید و از
دبدبه طاعی گشتن او فتوری بقواعد سلطنت راه یابد *

2. (a) Derive and give the root meanings of any six of the following words :— 6

انحراف - مقرب - موصوف - متانت - معروف - عصیان -

مشهور - موافقت - مسلوک *

(b) Explain the forms of *any four* of the following and give the meanings of their component parts:— 4

شورستان - متغیر المون - دار الخلافه - بیچارگی - فراغ بال -
فررتنی - کریمه الراحه *

3. Translate into English:—

A.

16

مانی از ترس شاپور از ایران گریخت بعقیده بعضی از مورخین
از راه کشمیر عازم بلاد هند گردید و از آنجا بترکستان و ختارخت
کشید و کار او در آنحدود بالا گرفت و در اثنای سیر غاری در کوهی
دید با فضا و هوای خوش و چشمه آب قوت یکساله بدان غار
برد و مریدها را گفت من به آسمان عروج میکنم و یکسال
میمانم پس از این مدت در حوالی فلان غار منتظر من شوید
این بگفت و بغار رفته در اوان عزلت نقشهای بدیع در لوحی
یا کتابی ساخت و ارژنگ مانی اسم آن نقشهاست چون
سال بسر رسید و از غار بیرون آمد آن تصاویر را معجز خود قرار
داد و گفت این بدایع را از آسمان آورده ام جمعی از دیدن آن
صور حیرت کرده بمانی ایمان آوردند و او با جماعتی از پیروان
خود بایران مراجعت نمود و با بهرام علاقات کرد و او را بدین
خود خواند *

B.

14

بسی صورت بگردیده است عالم
ازینصورت بگردد عاقبت هم
عمارت در سرای دیگر انداز
که دنیا را اساسی نیست محکم
مثال همسر بر کرده شمعی است
که کوتاه باز میگردد دمادم

و یا برف گدازان بر سر کوه
 کز هر لحظه جزوی میشود کم
 نه چشم طامع از دنیا شود سیر
 نه هرگز چاه پر گردد بشبلم
 بسیم رز نکو نامی بدست آر
 منہ برهم که برگیرندش از هم
 فریدون را سر آمد پادشاهی
 سلیمان را برفت از دست خاتم

4. Translate into Persian:—

50

A.

A few miles from Amsterdam there is a little town called Saardam. Here people used to build a great many ships. More than a hundred years ago, there were a great many carpenters at work at the ships in Saardam. Among the rest was one called Master Peter. Who do you think this Master Peter was? I will tell you. He was the Emperor of Russia. When the other carpenters found out that Master Peter was an Emperor, they were very much surprised, and wondered that he should be there at work as a carpenter. 'I will tell you the whole story,' said Peter. 'I am the Emperor of Russia. My people are ignorant, they do not know how to build ships. I have come here to learn how to build ships; and when I have learnt that, I shall go back and teach my people how to build ships.' He also taught them many other things.

B.

(a) I am not angry with you. But you should not have gone there. It is against orders.

(b) I will give you Rs. 10 as an advance. I will cut Rs. 2/8 0 every month from your pay until the Rs. 10 are paid up.

(c) I am very glad to see you. Please sit down. Are you very well? I have not seen you for a long time.

(d) The river is in flood, Can one cross over on foot? Is it possible to get timber there with which to make a bridge?

GREEK.

Paper-setters— { REV. DR. G. HOWELLS, M.A., PH.D.
REV. A. B. JOHNSTON, M.A.

FIRST PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate the following passages:—

(a) Περὶ μὲν οὖν ὧν οἱ πρῶτοί μου κατήγοροι κατηγοροῦν αὕτη 10
ἐστὶν ἱκανὴ ἀπολογία πρὸς ὑμᾶς· πρὸς δὲ Μέλητον τὸν ἀγαθὸν τε καὶ
φιλόπολιν, ὥς φησι, καὶ τοὺς ὑστέρους μετὰ ταῦτα πειράσσομαι ἀπολο-
γεῖσθαι. αὐθις γὰρ δὴ, ὥσπερ ἐτέρων τούτων ὄντων κατηγορῶν,
λάβωμεν αὐτὴν τούτων ἀντωμοσίαν. ἔχει δὲ πως ὧδε· Σωκράτη
φησὶν ἀδικεῖν τοὺς τε νέους διαφθείροντα καὶ θεοὺς οὓς ἡ πόλις νομίζει
οὐ νομίζοντα, ἕτερα δὲ δαιμόνια καινά. τὸ μὲν δὴ ἔγκλημα τοιοῦτόν
ἐστίν. τούτου δὲ τοῦ ἐγκλήματος ἐν ἑκαστῷ ἐξετάσωμεν. φησὶ γὰρ
δὴ τοὺς νέους ἀδικεῖν με διαφθείροντα. ἐγὼ δέ γε, ὦ ἄνδρες Ἀθηναῖοι,
ἀδικεῖν φημι Μέλητον, ὅτι σπουδῇ χαριεντίζεται ῥαδίως εἰς ἀγῶνα
καθιστὰς ἀνθρώπους, περὶ πραγμάτων προσποιούμενος σπουδάζειν καὶ
κῆδεσθαι ὧν οὐδὲν τούτῳ πώποτε ἐμέλησεν. ὥς δὲ τοῦτο οὕτως ἔχει
πειράσσομαι καὶ ὑμῖν ἐπιδείξαι.

(b) Ὡς δὲ τά τε τῶν γεφυρέων κατεσκευάστω, καὶ τὰ περὶ τὸν 10
Ἄθων, οἳ τε χυτοὶ περὶ τὰ στόματα τῆς διώρυχος, οἳ τῆς ῥήχης εἵνεκεν
ἐποιήθησαν, ἵνα μὴ πίμπληται τὰ στόματα τοῦ ὀρύγματος, καὶ αὐτὴ
ἡ διώρυξ παντελῶς πεποιημένη ἄγγελτο· ἐνθαυτῶ χειμερίσας, ἅμα τῷ
ἔαρι παρεσκευασμένος ὁ στρατὸς ἐκ τῶν Σαρδίων ὠρμάτω ἐλὼν ἐς
Ἄβυδον. Ὡρμημένῳ δὲ οἱ ὁ ἥλιος ἐκλιπὼν τὴν ἐκ τοῦ οὐρανοῦ ἔδρην,
ἀφανὴς ἦν, οὐτ' ἐπινεφέλων ἐόντων, αἰθρίης τε τὰ μάλιστα· ὅντι ἡμέρης
τε νύξ ἐγένετο. Ἰδόντι δὲ καὶ μαθόντι τοῦτο τῷ Ξέρξῃ ἐπιμελὲς
ἐγένετο· καὶ εἶρετο τοὺς μάγους τὸ θέλει προφαίνειν τὸ φύσμα. οἱ δὲ
ἔφραζον ὥς “Ἐλλῆσι προδεικνύει ὁ θεὸς ἔκλειψιν τῶν πολίων.”
λέγοντες “ἥλιον εἶναι Ἑλλήνων προδέκτορα, σελήνην δὲ σφέν.”
πυθόμενος δὲ ταῦτα ὁ Ξέρξης, περιχαρὴς ἔων ἐποιέετο τὴν ἔλασιν.

(c) Ὡς ἄρα φωνήσας ἵμασεν καλλιτρίχας ἵππους, 10
ἵκετο δ' εἰς Αἰγᾶς, ὅθι οἱ κλυτὰ δῶματ' ἔασιν.
αὐτὰρ Ἀθηναίῃ κούρῃ Διὸς ἄλλ' ἐνόησεν·
ἥ τοι τῶν ἄλλων ἀνέμων κατέδωκε κελεύθους,
παύσασθαι δ' ἐκέλευσε καὶ εὐνηθῆναι ἅπαντας.
ὥρσε δ' ἐπὶ κραιπνὸν βορέην πρὸ δὲ κύβητ' ἔαξε,
ἕως ὃ γε Φαίηκεσσι φιληρέτμοισι μιγείῃ
διογενῆς Ὀδυσσεὺς θάνατον καὶ κῆρας ἀλύξας.

- (d) "Ὡς ἔφατ', αἰδέτο γὰρ θαλερὸν γάμον ἐξονομῆναι
πατρὶ φίλῳ· ὁ δὲ πάντα νόει καὶ ἀμείβετο μύθῳ·
"Οὔτε τοι ἡμιόνων φθονέω, τέκος, οὔτε τευ ἄλλου.
ἔρχευ· ἀτὰρ τοι δμῶες ἐφοπλίσσουσιν ἀπήνην
ὑψηλὴν εὐκυκλον, ὑπερτερὴν ἀραρυῖαν."

10

2. Write explanatory and grammatical notes on passages (a) and (c) given above. Parse the more difficult forms. 20

3. Give a critical estimate of the contents and form of Plato's *Apology* of Socrates. 10

Either,

4. Review the contents of Herodotus, Book VII, and indicate the merits of Herodotus as a historian. 10

Or,

Give an account and write an estimate of the more important characters brought to our notice in the *Odyssey*, Books V and VI.

5. 'Conditional sentences in Greek have six forms—four of ordinary conditions, and two of present and past general suppositions.' Expand this statement and give illustrative examples.

6. Give with examples the uses of—*παρά*, *περί*, *πρός*, and *ὑπό*. 10

GREEK.

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into Greek:—

16

(a) If I know neither what is holy nor what is just, do you teach me as quickly as possible.

(b) They sent envoys to Sparta to say this and to ask for Lysander.

(c) If these men accomplished what secured your great advantage, I might justly claim not the least share of the merit.

(d) I opposed you that you should do nothing contrary to the laws.

2. Translate into Greek:—

14

When the news came that the generals had been ambushed and slain, the majority of the troops almost despaired. 'Never again,' they cried, 'shall we see our dear motherland.' But one officer was made of the invincible spirit that won the battle of Marathon. He called the other captains together, addressed them, and inspired them with hope—the key to victory. Is there a land that has not heard his name?

3. Translate into English:—

(a)

« The Righteous Man.

20

Ἀνὴρ δίκαιός ἐστιν οὐχ ὁ μὴ ἀδικῶν,
ἀλλ' ὅστις ἀδικεῖν δυνάμενος μὴ βούλεται.

οὐδ' ὅς τὰ μικρὰ λαμβάνειν ἀπέσχετο,
 ἀλλ' ὅς τὰ μεγάλα καρτερῇ μὴ λαμβάνων,
 ἔχειν δυνάμενος καὶ κρατεῖν ἀζημίως·
 οὐδ' ὅς γε ταῦτα πάντα διατηρεῖ μόνον,
 ἀλλ' ὅστις ἀδολον γνησίαν τ' ἔχων φύσιν
 εἶναι δίκαιος κοῦ δοκεῖν εἶναι θέλει.

(b) Μετὰ δὲ ταῦτα καὶ οἱ Ἀθηναῖοι ἐκ τοῦ Νοτίου καθελκύσαντες 25
 τὰς λοιπὰς τριήρεις ἀνήχθησαν, ὡς ἕκαστος ἤνοιξεν. ἐκ τοῦτου δ'
 ἐναυμόχησαν οἱ μὲν ἐν τάξει, οἱ δὲ Ἀθηναῖοι διεσπαρμέναις ταῖς ναυσί,
 μέχρι οὗ ἔφυγον ἀπολέσαντες πεντεκαίδεκα τριήρεις. τῶν δὲ ἀνδρῶν
 οἱ μὲν πλείστοι ἐξέφυγον, οἱ δ' ἐζωγρήθησαν. Λύσανδρος δὲ τὰς τε
 ναῦς ἀναλαβὼν καὶ τρόπαιον στήσας ἐπὶ τοῦ Νοτίου διέπλευσεν εἰς
 Ἐφεσον, οἱ δὲ Ἀθηναῖοι εἰς Σάμον.

(c) *Prometheus to Oceanus.*

25

Τὰ μὲν δ' ἐπαινῶ κοῦδαμῶς λήξω ποτέ·
 προθυμίας γὰρ οὐδὲν ἐλλείπεις. ἀτὰρ
 μηδὲν πόνει· μάτην γὰρ οὐδὲν ὠφελῶν
 ἐμοὶ πονήσεις, εἴ τι καὶ πονεῖν θέλεις.
 ἀλλ' ἡσύχαζε σαυτὸν ἐκποδὼν ἔχων·
 ἐγὼ γὰρ οὐκ, εἰ δυστυχῶ, τοῦδ' εἵνεκα
 θέλωμι' ἂν ὡς πλείστοισι πημονὰς τυχεῖν.

LATIN.

Paper-setters—{ A. D. KEITH, ESQ., M.A.
 G. H. LUCE, ESQ., M.A.

FIRST PAPER.

Examiner—W. G. FRASER, ESQ.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks.

GROUP A.

Answer question 1 and EITHER question 2 OR question 3.

1. Translate into English, adding notes where necessary :—

15

- (a) Quid sit futurum cras fuge quaerere et
 quem Fors dierum cumque dabit lucro
 appone, nec dulcis amoros
 sperne puer neque tu choreas.
 donec virenti canities abest
 morosa. nunc et campus et areae
 lenesque sub noctem susurri
 composita repetantur hora,

nunc et latentis proditor intimo
gratus puellae risus ab angulo
pignusque dereptum lacertis
aut digito male pertinaci.

- (b) Omnes eodem cogimur, omnium
versatur urna serius ocus
sors exitura et nos in aeternum
exilium impositura cumbae.

- (c) Quid brevi fortes iaculamur aevo
multa ? quid terras alio calentis
sole mutamus ? patriae quis exsul
se quoque fugit ?
laetus in praesens animus quod ultra est
oderit curare et amara lento
temperet risu ; nihil est ab omni
parte beatum.

2. What do you gather from the *Odes* of Horace's life and philosophy ? 12

3. Explain the following allusions :— 12

- (a) Age dic Latinum,
barbite, carmen,
Lesbio primum modulate civi.

- (b) Invidens
privata deduci superbo
non humilis mulier triumpho.

- (c) Ne relictis, Musa procax, iocis.
Cecae retractes munera neniae.

- (d) Philippos et celerem fugam
sensi relictæ non bene parmula.

GROUP B.

Answer question 4 and EITHER question 5 OR question 6.

4. Translate into English :—

15

(a) Tu vero adscribe me talem in numerum. Sed unam rem vereor ne non probes. Si enim fuisset, non solum regem, sed etiam regnum de re publica sustulisset ; et si theus stilus ille fuisset, ut dicitur, mihi crede, non solum unum actum, sed totam fabulam confecissem.

Explain the point and context of this passage.

(b) Fuit in illo ingenium, ratio, memoria, litterae, cura, cogitatio. diligentia ; res bello gesserat quamvis rei publicae calamitosas, at tamen magnas ; multos annos regnare meditatus, magno labore, multis periculis quod cogitarat effecerat ; muneribus, monumentis, congiariis, epulis multitudinem inperitam delenierat ; suos praemiis, adversarios clementiae specie devinxerat : quid multa ? attulerat iam liberae civitati partim metu, partim patientia consuetudinem serviendi.

Give a short account of the person here referred to.

5. What were the consequences of the assassination of Julius Caesar ? 12

6. Write a short note on—*nundinae* ; *mediusfidius* ; *intercessio* ; *flamen* ; *illud Cassianum, cui bono fuerit* ; *cedant arma togae*. 12

GROUP C.

All questions to be answered.

7. Translate:—

15

Romae interim satis iam omnibus, ut in tali re, ad tuendam arcem compositis, turba seniorum domos regressi adventum hostium obstinato ad mortem animo expectabant. Qui eorum curules gesserant magistratus, ut in fortunae pristinae honorumque aut virtutis insignibus morerentur, quae augustissima vestis est tensas ducentibus triumphantibusve, ea vestiti medio aedium eburneis sellis sedere. Galli et quia interposita nocte a contentione pugnae remiserant animos et quod nec in acie ancipiti usquam certaverant proelio nec tum impetu aut vi capiebant urbem, sine ira, sine ardore animorum ingressi postero die urbem patente Collina porta in forum perveniunt: ubi eos, plebis aedificiis obsoratis, patentibus atriis principum, maior prope cunctatio tenebat aperta quam clausa invadendi; adeo haud secus quam venerabundi intuebantur in aedium vestibulis sedentes viros, praeter ornatum habitumque humano angustiores, maiestate etiam quam voltus gravitasque oris prae se forebat simillimos dis. Ad eos velut simulacra versi cum starent, M. Papirius, unus ex iis, dicitur Gallo barbam suam, ut tum omnibus promissa erat, permulcenti scipione eburneo in caput incussisse. Iram movisse, atque ab eo initium caedis ortum, ceteros in sedibus suis trucidatos.

8. (a) Give the chief uses of the ablative case.

15

(b) Illustrate the chief uses of *ut*.

(c) Give the chief rules for the comparison of adjectives.

9. (a) Explain the history of the relations between the Patricians, Tribunes, and Plebeians.

16

(b) Illustrate with the help of a map the development of Roman conquest and the invasion of the Gauls, as recorded in Livy, Book V.

LATIN.

SECOND PAPER.

Examiner—J. W. HOLME, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate the following:—

30

(a) Sed iam satis multa de causa, extra causam etiam nimis fortasse multa. Quid restat nisi ut orem obtesterque vos, iudices, ut eam misericordiam tribuatis fortissimo viro quam ipse non implorat, ego etiam repugnante hoc et imploro et exposco? Nolite, si in nostro omnium fletu nullam lacrimam adspexistis Milonis, si vultum semper eundem, si vocem, si orationem stabilem ac non mutatam videtis, hoc minus ei parcere; haud scio an multo sit etiam adjuvandum magis. Etenim si in gladiatoris pugnis et in infimi generis hominum conditione atque fortuna timidos atque supplices et ut vivere liceat obsecrantis etiam odisse solemus, fortis

atque animosos et se acriter ipsos morti offerentis servare cupimus, eorumque nos magis miseret qui nostram misericordiam non requirunt quam qui illam efflagitant, quanto hoc magis in fortissimis civibus facere debemus. Me quidem, iudices, exanimant et interimunt hae voces Milonis quas audio assidue et quibus intersum cotidie. 'Valeant,' inquit, 'valeant cives mei; sint incolumes, sint florentes, sint beati; stet haec urbs praeclara mihiq; patria carissima quoquo modo erit merita de me; tranquilla re publica mei cives, quoniam mihi cum illis non licet, sine me ipsi sed propter me tamen perfuantiur.'

(b)

Either,

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Turnus, ut Aenean cedentem ex agmine vidit
turbatosque duces, subita spe fervidus ardet;
poscit equos atque arma simul, saltuque superbus
emicat in currum, et manibus molitur habenas.
Multa virum volitans dat fortia corpora leto;
semineces volvit multos, aut agmina curru
proterit aut raptas fugientibus ingerit hastas.
Qualis apud gelidi cum flumina concitus Hebrī
sanguineus Mavors clipeo increpat atque furentes
bella movens immitte, equos; illi aequore aperto
anto Notos Zephyrumque volant; gemit ultima pulsu
Thracæ pedum; circumque atreæ Formidinis ora,
Iraeque, Insidiaequæ, dei comitatus aguntur;
talīs equos alacer media inter proelia Turnus
fumantes sudore quatit, miserabile caesis
hostibus insultans.

Or,

At sunt morosi et anxii et iracundi et difficiles senes. Si quaerimus, etiam avari; sed haec morum vitia sunt, non senectutis. Ac morositas tamen et ea vitia, quae dixi, habent aliquid excusationis, non illius quidem iustae, sed quae probari posse videatur; contemni se putant, despici, illudi; praeterea in fragili corpore odiosa omnis offensio est; quae tamen omnia dulciora fiunt et moribus bonis et artibus, idque cum in vita tum in scaena intellegi potest ex eis fratribus qui in Adelphiis * sunt. Quanta in altero diritas, in altero comitas! Sic se res habet; ut non omne vinum sic non omnis natura vetustate coacescit. Severitatem in senectute probo, sed eam, sicut alia, modicam; acerbiter nullo modo; avaritia vero senilis quid sibi velit, non intelligo.

* *Adelphi*, 'the Brothers', name of a play.

2. Translate into Latin:—

(a) A decree of the Senate was passed that the tribunes should call a meeting and express their thanks to the knights.

(b) The sedition in the city came nigh to extending to the army.

(c) He sent a letter to the Senate stating that Veii was on the point of capitulating, and asking what they thought ought to be done with the booty.

(d) May you all of you prove successful.

(e) There is no doubt that if a woman had not acted a man's part that day all would have been lost.

3. Translate into Latin:—

Caesar foresaw that if the enemy were defeated in the first onslaught they would retreat so rapidly as to make it impossible for his more heavily armed soldiers to come up with them. For this reason he did not attack that afternoon. During the night he sent

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large bodies of troops across the river to surround the enemy. Elated by the thought of victory the enemy spent the night feasting and drinking while the minstrels sang songs celebrating the great victory which they were going to win the next day. In the meanwhile the men whom Caesar had sent to surround the enemy crossed the river unseen, and marching all night in silence, hidden from sight by the range of low hills on either flank of the enemy, had by the time the dawn broke completely surrounded the enemy. About an hour after dawn Caesar, having received information that the enemy could no longer escape by running away, attacked with all his forces. The battle was short but fierce. The enemy turning to flee found that in whatever direction they went there were Roman soldiers opposing their flight. Very few of the fugitives escaped through the ranks of the legionaries. The rest were either killed or made prisoners.

FRENCH.

Paper-setters—{ REV. FATHER E. FRANCOTTE, S.J.
T. S. STERLING, Esq., M.A.

FIRST PAPER.

Examiner—REV. FATHER E. FRANCOTTE, S.J.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate *our* of the five following passages :—

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(a) On comprend *irès-bien* tout de suite quel entretien Tartuffe a eu avec Orgon, quel enseignement il lui a donné. *Son* but étant d'accaparer Orgon et pour ainsi dire de le monopoliser, il lui a persuadé que Dieu ne veut d'attachement qu'à lui, et c'était pour amener Orgon à n'avoir d'attachement qu'à lui Tartuffe. Il a réussi si bien qu'Orgon s'imagine—car il n'en est pas encore là—n'avoir plus de liens avec la terre et être tout en Dieu, et c'est à dire tout en Tartuffe, qui est pour lui le représentant du ciel. Cléante s'écrie, véritablement effrayé : ' Les sentiments humains, mon frère, que voilà ! '

(b) Cependant le nombre des pauvres *s'augmentait* sans fin par le luxe, par les débauches et par la fainéantise qui s'introduisait. Ceux qui se voyaient ruinés n'avaient de ressource que dans les séditions, et en tout cas se souciaient peu que tout pérît après eux. *On* sait que c'est ce qui fit la conjuration de Catilina. Les grands ambitieux et les misérables qui n'ont rien à perdre aiment toujours le changement. Ainsi finit la République romaine, qui est un grand enseignement, autant par ce qui a fait sa grandeur et qu'il convient qu'on imite, que par ce qui l'a ruinée et qu'il faut qu'on évite de toute énergie et de toute constance.

(c) Au nord du château s'étendait une lande semée de pierres druidiques ; j'allais m'asseoir sur une de ces pierres au soleil couchant. La cime dorée du bois, la splendeur de la terre, l'étoile du soir scintillant à travers les nuages de rose me ramenaient à mes

songes ; j'aurais voulu jouir de ce spectacle avec l'idéal objet de mes désirs . . . Le vent du soir qui brisait les réseaux tendus *par* l'insecte sur la pointe des herbes, l'âlolette de bruyère qui se posait sur un caillou *me* rappelaient à la réalité ; je reprenais le chemin du manoir, le cœur serré, le visage abattu.

(d) *A poignées* n'est pas ostentatoire, n'indique pas la prodigalité. S'il indiquait la prodigalité il *serait* impropre, car le semeur *set tout* le contraire d'un prodigue. Mais le semeur est vieux, savant dans son métier, expert, et il prend le grain à poignées *pleines*, dans son sac, pour ne pas faire deux mouvements quand il n'en faut qu'un, pour faire l'économie d'un mouvement, pour ne pas perdre de temps ; sûr, du reste, parce qu'il sait semer, de jeter le grain avec assez d'adresse pour qu'il soit convenablement dispersé et disséminé. L'art de semer est là. Il n'est inconnu ni du paysan ni de Victor Hugo.

(e) La vieille demoiselle Michonneau gardait sur ses yeux fatigués un crasseux abat-jour en taffetas *vert*, cerclé par du fil d'archal qui aurait effarouché l'ange de la pitié. Son châle à franges maigres et pleurardes semblait couvrir un squelette, tant les formes *qu'il* couvrait étaient anguleuses. Quel acide avait dépouillé cette créature de ses formes féminines ? Elle devait avoir été jolie et bien faite. Était-ce le vice, le chagrin ou la cupiuité ? Avait-elle trop aimé, avait-elle été marchande à la toilette ou seulement courtisane ? Son regard blanc donnait froid, sa figure *rabougrie* menaçait. Elle avait la voix clairette d'une cigale, criant dans son buisson à l'approche de l'hiver.

2. Translate idiomatically *three* of the four following passages :—

- (a) *Cinna*. Jamais contre un tyran entreprise conçue
Ne permit d'espérer une si belle issue :
Jamais de telle ardeur on n'en jura la mort,
Et jamais conjurés ne furent mieux d'accord ;
Tous s'y montrent portés avec tant d'allégresse,
Qu'ils semblent, comme moi, servir une maîtresse :
Et tous font éclater un si puissant courroux,
Qu'ils semblent tous venger père, comme vous
- (b) *Maxime*. Quel est votre dessein après ces beaux discours ?
Cinna. Le même que j'avais, et que j'aurai toujours.
Maxime. Un chef de conjurés flatte la tyrannie !
Cinna. Un chef de conjurés veut la voir impunie !
Maxime. Je veux voir Rome libre. *Cinna*. Et vous pouvez
juger
Que je veux l'affranchir ensemble et la venger.
Octave aura donc vu ses fureurs assouvies,
Pillé jusqu'aux autels, sacrifié nos vies, . . . !
- (c) *Fulvie*. Vous avez mis son âme au désespoir.
Émilie. Qu'il cesse de m'aimer, ou suive son devoir.
Fulvie. Il va vous obéir aux dépens de sa vie :
Vous en pleurez ! *Émilie*. Hélas, cours après lui,
Fulvie ;
Et si ton amitié daigne me secourir,
Arrache-lui du cœur ce dessein de mourir :
Dis-lui . . . *Fulvie*. Qu'en sa faveur vous laissez
vivre Auguste ?
- Émilie*. Ah ! c'est faire à ma haine une loi trop injuste.
Fulvie. Et quoi donc ? *Émilie*. Qu'il achève, et dégage
sa foi,
Et qu'il choisisse après de la mort, ou de moi.

- (d) *Auguste*. Prends un siège, Cinna, prends, et sur toute chose
 Observe exactement la loi que je t'impose :
 Prête, sans me troubler, l'oreille à mes discours ;
 D'aucun mot, d'aucun cri, n'en interromps le
 cours ;
 Tiens ta langue captive, et, si ce grand silence
 A ton émotion fait quelque violence,
 Tu pourras me répondre après tout à loisir :
 Sur ce point seulement contente mon désir,

3. (a) Parse fully *six* of the words italicised in Question 1. 6
 (b) Give the principal parts (*temps primitifs*) of : *périr*, *savoir*, 8
faire, *falloir*, *aller*, *s'asseoir*, *prendre*, *être*. N.B. — Give only the first
 person singular for finite tenses.
 (c) Write synonyms for :—*couchant*, *cime*, *songes*, *manoir* (1, c) ; 4
tout de suite (1, a) ; *faivântise* (1, b) ; *sûr*, *expert* (1, d).
 4. (a) In 1, a write in full the clause embodied in the single word 3
là.
 (b) What exactly does Cléante mean in the last clause of 1, a : 4
 ' Les sentiments humains, mon frère, que voilà ' !
 (c) What was, in your opinion, the chief purpose of É. Faguet 3
 • ' Ce que disent les livres ' ?
 (d) Who are the respective authors of 1, c and 1, e ? What do 5
 you know about them, either from the context, or from other
 sources ?
 5. (a) Scan the sixth line of 2, d, separating each foot by a vertical 2
 line.
 (b) Parse fully :—*vous* (2, c. *Fulvie*. Il va *vous* obéir) and *après* 2
 (last line of 2, c).
 (c) Distinguish between :—*toucher à*, *toucher* ; *le précepteur*, *le* 2
percepteur ; *des exemples fameux*, *de fameux exemples* ; *un triste*
enfant, *un enfant triste*.
 (d) Supply the blanks in the following :—Cette suite des empires, 4
 même à—considérer plus humainement, a—grandes utilités. Quand
 vous voyez passer comme—un instant devant vos yeux, je ne dis pas
 les rois et—empereurs . . . Il n'est point arrivé—grands changements
 qui—ait eu ses causes dans—siècles précédents. Les prairies ne sont
 plus blanches—givre. Une blancheur malade semblable—celle—
 jeunes filles attaquées de chlorose.
 (e) Condense into not more than two lines of French prose the 2
 passage 2, d spoken by Auguste.
 6. Turn into idiomatic French two of the following passages :— 30
 (a) Our next business, I think, should be to treat of pleasure.
 For pleasure seems, more than anything else, to have an intimate
 connection with our nature ; which is the reason why, in educating
 the young, we use pleasure and pain as the rudders of their course.
 (b) The most considerable and the most general changes upon
 the surface of the earth are provoked by rains, rivers, and torrents
 from the mountains. These derive their origin from vapours which
 the sun draws up from the surface of the seas, and which the winds
 carry to every region of the earth.
 (c) Let us remember that this long chain of particular causes,
 which raises and destroys empires, depends on the secret decrees of
 Divine Providence. God, from the highest heaven, holds the reins
 of all the kingdoms upon earth. All hearts are in his hand. He
 sometimes restrains the passions of men, at other times he lets them
 loose . . .

FRENCH.

SECOND PAPER.

Examiner—T. S. STERLING, ESQ., M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Translate into English *seven* of the following passages :—

70

- (a) Maintenant que Paris, ses pavés et ses marbres,
Et sa brume et ses toits sont bien loin de mes yeux ;
Maintenant que je suis sous les branches des arbres,
Et que je puis songer à la beauté des cieux ;
Maintenant que du deuil qui m'a fait l'âme obscure
Je sors, pâle et vainqueur,
Et que je sens la paix de la grande nature
Qui m'entre dans le cœur . . .
- (b) Quel charme vainqueur du monde
Vers Dieu m'élève aujourd'hui ?
Malheureux l'homme qui fonde
Sur les hommes son appui !
Leur gloire fuit et s'efface
En moins de temps que la trace
Du vaisseau qui fend les mers,
Ou de la flèche rapide
Qui, loir de l'œil qui la guide,
Cherche l'oiseau dans les airs.
- (c) *La Mort d'un Chêne.*
Quand l'homme te frappa de la lâche cognée,
O roi qu'hier le mont portait avec orgueil,
Mon âme au premier coup retentit indignée,
Et dans la forêt sainte il se fit un grand deuil.
Un murmure éclata sous ses ombres paisibles :
J'entendis des sanglots et des bruits menaçants ;
Je vis errer des bois les hôtés invisibles,
Pour te défendre, hélas ! contre l'homme impuissants.
- (d) C'est à toi qu'il convient d'ouïr les grandes plaintes
Que l'humanité triste exhale sourdement.
Quand le cœur est gonflé d'indignations saintes,
L'air des cités l'étouffe à chaque battement.
Mais de loin les soupirs des tourmentes civiles,
S'unissant au-dessus du charbon noir des villes,
Ne forment qu'un grand mot qu'on entend clairement.

(e) La lecture est le remède souverain à la stérilité d'esprit. Par elle il s'ouvre, se remplit ; tout le monde moral et physique trouve un accès en lui. Pour apprendre à écrire surtout, il faut lire : c'est ainsi qu'on recueille des idées pour les exprimer à son tour. Parfois, quand on est jeune, on se pique d'originalité et l'on prétend penser des choses qu'aucune intelligence humaine n'ait encore pensées. Les idées neuves sont rares en ce monde : on pourrait n'en pas rencontrer une seule dans l'œuvre de plus d'un grand écrivain, qui n'en vaut pas moins

(f) Penser, c'est réfléchir, méditer, et s'entretenir avec soi-même : pour faire chacune de ces actions il est nécessaire de faire un effort de nos facultés mentales. Réfléchir, c'est peser un argument dans notre esprit, de même manière et pour le même but que nous pesons sur les balances quelque article pour en définir le poids. Méditer, c'est devenir susceptible d'envisager les sujets. S'entretenir avec soi-même, c'est avoir une conversation avec soi-même, une causerie paisible et calme avec notre âme.

(g) Ne surcharge pas ta mémoire comme pour faire un esclave d'un si fidèle serviteur. Souviens-toi qu'Atlas était fatigué. Aie donc autant de raison qu'un chameau, pour te lever quand tu as ton plein fardeau. La mémoire, pareille à une bourse, si elle est trop emplie et ne se peut fermer, tout tombera dehors ; prends garde à une curiosité gloutonne, qui veut se nourrir de maintes choses, de peur que l'avidité de l'appétit de ta mémoire n'en gâte la digestion.

(h) Par le moyen de cette lettre et des autres que je vous ai déjà envoyées, vous serez d'abord si bien introduit dans la meilleure société française, que vous auriez de la peine à en voir une mauvaise ; mais ce n'est pas ce que je crains de votre part ; vous avez, j'en suis sûr, une ambition trop haute pour préférer une compagnie méprisable et déshonorante à celle de vos supérieurs par le rang et par l'âge.

2. Translate into French three of the following passages :—

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(a) There is no wealth but life—life, including all its powers of love, of joy, and of admiration. That country is the richest which nourishes the greatest number of noble and happy human beings : that man is richest who, having perfected the functions of his own life to the utmost, has also the widest helpful influence, both personal and by means of his possessions, over the lives of others.

(b) Once when he had done thus, and gone from the feast to the stable where he had that night charge of the cattle, there appeared to him in his sleep One who said, greeting him by name, 'Sing, Cadmon, some song to me.' 'I cannot sing,' he answered ; 'for this cause left I the feast and came hither.' He who talked with him answered, 'However that be, you shall sing to me.' 'What shall I sing ?' rejoined Cadmon. 'The beginning of created things,' replied He.

(c) A poor widow once lived in a little cottage with a garden in front of it, in which grew two rose-trees, one bearing white roses and the other red. She had two daughters, who were just like the two rose-trees ; one was called Blanche and the other Rose, and they were the sweetest and best children in the world ; but Blanche was quieter and more gentle than her sister. Rose loved to run about the fields and to pick flowers and catch butterflies ; but Blanche remained at home with her mother and helped her in the household work.

(d) Fernand Cortez, the famous conqueror of Mexico, was born in the year fourteen hundred and eighty-five. He belonged to a noble but poor family. After many brilliant victories he returned to Spain, where he was coolly received by the King. One day he presented himself to the monarch, who said to him : 'Who are you ?' 'I am', replied Cortez proudly, 'the man who has given you more provinces than your ancestors left you cities.'

(d) Remark on the form $\mu_{\alpha\beta}$. 1

(e) What is the force of **م** in the clause **م'مَدَّ**? 1

3. Translate:— 6

4. (a) Parse **پارسی** 2

(b) What is the meaning of the root of **مَدَّ**? 2

(c) In what other ways can the expression 'between 4 us and them' be rendered in Syriac?

5. Translate the following passages as *literally* as possible:—

possible. —

4 (a) יִשְׁחַק דַּמְעָה מִנָּה וְחָלָה מוֹת מִלֵּה דָּוָה וְיִשְׁחַק
וְיִשְׁחַק. מִן הַדְּמָעוֹת וְיִשְׁחַק מִן הַדְּמָעוֹת וְיִשְׁחַק מִן הַדְּמָעוֹת.
וְיִשְׁחַק מִן הַדְּמָעוֹת וְיִשְׁחַק מִן הַדְּמָעוֹת וְיִשְׁחַק מִן הַדְּמָעוֹת.
וְיִשְׁחַק מִן הַדְּמָעוֹת וְיִשְׁחַק מִן הַדְּמָעוֹת וְיִשְׁחַק מִן הַדְּמָעוֹת.

HEBREW.

Paper-setter—A. H. HARLEY, Esq., M A.

FIRST PAPER.

*Observe the alternatives in Questions 3 and 5.**Candidates are required to give their answers in their own words as far as practicable.**The figures in the margin indicate full marks.*

I. Translate:—

(a) וְהוֹכַח אֲבִרָהִם אֶת־אֲבִימֶלֶךְ עַל־אֲדֹת בָּאָר הַמִּים
 אֲשֶׁר בָּזְלוּ עֲבָדֵי אֲבִימֶלֶךְ: וַיֹּאמֶר אֲבִימֶלֶךְ לֹא יִדְעָתִי מִי
 עָשָׂה אֶת־הַדָּבָר הַזֶּה וְגַם־אֶתָּה לֹא־יָדַעְתָּ לִּי וְגַם אֲנֹכִי לֹא
 שָׁמַעְתִּי בְלַתִּי הַיּוֹם: וַיִּקַּח אֲבִרָהִם צֹאן וּבָקָר וַיִּתֵּן לְאֲבִימֶלֶךְ
 וַיִּכְרְתוּ שְׁנֵיהֶם בְּרִית: וַיִּצַּב אֲבִרָהִם אֶת־שִׁבְעַת כִּבְשֹׁת הַצֹּאן
 לְבִדְהָן: וַיֹּאמֶר אֲבִימֶלֶךְ אֶל־אֲבִרָהִם מַה הִנֵּה שִׁבְעַת כִּבְשֹׁת
 הָאֵלֶּה אֲשֶׁר הִצַּבְתָּ לְבִדְנָה: וַיֹּאמֶר כִּי אֶת־שִׁבְעַת כִּבְשֹׁת תִּקַּח
 מִיָּדוֹ בַּעֲבוּר תְּהִי־לִי לְעֵדָה כִּי חִפְרָתִי אֶת־הַבָּאָר הַזֹּאת:
 עַל־כֵּן קִרְא לְמָקוֹם הַהוּא בָּאָר שִׁבְעַת כִּי שֵׁם נִשְׁבַּעוּ שְׁנֵיהֶם:

(b) וַיַּחֲדֵךְ לִיעֶקֶב וַיִּרְבֵּב בְּלָבָן וַיַּעֲקֹב וַיֹּאמֶר לְלָבָן מַה־
 פָּשַׁעִי מֵהַ חַטָּאתִי כִּי דִלַקְתָּ אֹחֵרִי: כִּי מִשְׁשַׁת אֶת־כָּל־כְּלִי
 מִהֶמְצָאתִי מִכָּל כְּלִי־בִתְּךָ שֵׁם כֹּה נִגְדָּה אֹחִי וְאֹחִי־יִוִּיכִיחוּ
 בֵּין שְׁנֵינוּ: זֶה עֲשִׂירִים שָׁנָה אֲנֹכִי עִמָּךְ רַחֲלִיקָה וְעִזִּיקָה לֹא
 שָׁכָלוּ וְאִילִי צֹאנָה לֹא אָכַלְתִּי: טֶרֶפָה לֹא הִבֵּאתִי אֵלֶיךָ אֲנֹכִי
 אֲחַטְנָה מִיָּדִי תִּבְקָשְׁנָה נִנְבְּתִי יוֹם וְנִנְבְּתִי לַיְלָה: הִיִּיתִי בְּיוֹם
 אֶכְלָנִי חֶרֶב וְקָרַח בְּלִילָה וְתִדְרֹךְ שְׁנֵתִי מֵעֵינִי: זֶה־לִּי עֲשִׂירִים
 שָׁנָה בְּבֵיתְךָ עֲבַדְתִּיךָ אַרְבַּע־עֶשְׂרֵה שָׁנָה בְּשֵׁתִי בְּנֵתְךָ וְשֵׁשׁ
 שָׁנִים בְּצֹאנָה וְתַחֲלַף אֶת־מִשְׁכָּרְתִּי עֲשֶׂרֶת מְנִים: כֹּלִי אֵלֶּה
 אֲבִי אֵלֶּה אֲבִרָהִם וּפְחָד יִצְחָק הִיָּה לִּי כִּי עָתָה רִיקָם שְׁלַחְתָּנִי
 אֶת־עֲנִי וְאֶת־יָנִיעַ כִּפִּי רָאָה אֱלֹהִים וַיִּכַּח אִמְשׁ:

2. (a) Remark on the following:—**בְּלִתִּי, בְּעֵבֹר, לְבִדְּנָה**, and 5
attach pronominal suffixes to **לְבָר**.

(b) Parse all the verbs in passage (a), Question 1. 7

(c) What is the pointing of the interrogative **מָה**? 3

(d) Attach pronominal suffixes to the singular and plural of **אָח** 1
(brother).

(e) Remark on the forms **בְּיָמָי** and **לְיָמִי**. 3

(f) What is meant by Daghesh Forte Coniunctivum? Illustrate 3
its use.

3. Translate:—

Either, 6

ותאמר נעמי שבנה בנתי למה תלכנה עמי העוד-לי בנים
במעי והיו לכם לאנשים: שבנה בנתי לכן כי זקנתי מהיות
לאיש כי אמרתי יש-לי תקוה גם הייתי הלילה לאיש וגם
ילדתי בנים: הלהן תשברנה עד אשר יגדלו הלהן תעננה
לבלתי היות לאיש אל בנתי כי-מר-לי מאד מכם כי יצאה
בי ידיהוה:

Or,

ויאמר דָּבִי המטפחת אשר עליך וְאַחֲזִי-בָהּ ותאחז בָּהּ
וימד שש שערים וישת עליה ויבא העיר: ותבוא אל-חמותה
ותאמר מי-את בתי ותגדלה את כל-אשר עשה לה האיש:
ותאמר שש-השערים האלה נתן לי כי אמר אלי אל-תבאי
ריקם אל-חמותך: ותאמר שבי בתי עד אשר תדעין איך
יפל דבר:

4. (a) Parse **שְׁבִנָה, שְׁבִי, תִּדְעִי, דָּבִי, שְׁבִי, שְׁבִנָה**. 4

(b) How are conditional clauses expressed in Hebrew? 3

5. Point one of the passages in Question 3. 8

6. Translate into Hebrew:— 10

(a) And the Lord appeared to him a second time.

(b) When the Lord thy God shall deliver them before thee thou shall smite them and utterly destroy them; thou shalt make no covenant with them nor show mercy unto them.

(c) In that day shall there be an altar to the Lord in the midst of the land of Egypt, and a pillar at the border thereof to the Lord. And it shall be for a sign and a witness unto the Lord of hosts in the land of Egypt; for they shall cry unto the Lord because of the oppressors, and he shall send them a saviour, and he shall deliver them.

HEBREW.

SECOND PAPER.

Observe the alternative in Question 3.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. (a) Translate:—

10

זָכְרוּ רֵאשִׁנוֹת מְעוֹלָם כִּי אָנֹכִי אֵל
וְאִין עוֹד אֱלֹהִים וְאַפָּם כְּמוֹנִי :
מִגִּיד מֵרֵאשִׁית אַחֲרִית וּמִקֶּדֶם אֲשֶׁר לֹא-נִעְשׂוּ .
אָמַר עֲצָתִי תִקּוּם וְכָל-חֲפָצִי אֲעֲשֶׂה :
קָרָא מִמְּזוֹרַח עֵיט מֵאֶרֶץ מְרַחֵק אִישׁ עֲצָתוֹ
אֶפְרַיִם בְּרַתִּי אֶפְרַיִם אֲבִיאָנָה יִצְרָתִי אֶפְרַיִם אֲעֲשֶׂנָּה :

(b) What is the construction of the substantive verb *אִין*?

(c) Parse fully *עֲצָרְנוּ*.

2. (a) Translate:—

10

רָנּוּ שָׁמַיִם וְגִילִי אֶרֶץ יִפְצְחוּ הָרִים רָנָה
כִּי-נָחַם יְהוָה עָמוֹ וַעֲבָנֵי יְרֵחַם :
וַתֹּאמֶר צִיּוֹן עֲזָבֵנִי יְהוָה וַאֲדָנִי שָׁכַחֵנִי :
הִתְשַׁכַּח אִשָּׁה עוֹלָה מֵרַחֵם בְּוַבְטָנָה
נֶסֶם-אֵלֶּה תִשְׁכַּחֲנָה וְאַנֹכִי לֹא אֲשַׁכַּח :
הֵן עַל-כַּפַּיִם חֲקִיתִךָ חוֹכְמַתִּךָ נִגְדִי תִמִּיד :
מִהָרִי בְּנִיךָ מִהָרְסִיךָ וּמִחֲרִיבִיךָ מִכּוֹף יֵצְאוּ :

(b) In the first line for *יפצחו* read *יפצחו* and translate.

3. Translate any three of the following:—

8

(a) כִּי שִׁמְחַתֵּנִי יְהוָה בְּפַעֲלָהּ בְּמַעֲשֵׂי יָדֶיהָ אֲרַנּוּ :
מִהֲנִדְלוּ מַעֲשֵׂיהָ יְהוָה מֵאֵד לְעִמְקוֹ מִחֲשֻׁבְתֶּיהָ :
אִישׁ-בָּעַר לֹא יִדְעַ וְכִסִּיל לֹא יָבִין אֶת-יְזֹאת :

(b) הַנִּשְׂא שֵׁפֶט הָאָרֶץ הָיָשָׁב נָמוּל עַל-נָאִים :

עַד-מָתִי רָשָׁעִים יִהְיֶה עַד-כִּמְתִּי רָשָׁעִים יַעֲלוּ :

יָבִיעוּ יִדְבְּרוּ עִתָּק וּתְאֲמָרוּ כָּל-פֹּעֲלֵי אָנוּ :

(c) כָּל-הַיּוֹם חֲרַפּוֹנִי אוֹיְבִי מְהוֹלְלִי בִּי נִשְׁבָּעוּ :

כִּי-אֶפֶר בְּלֶחֶם אֲכָלְתִּי וְשִׁקְוִי בְּבִבִּי מִסִּכְתִּי :

מִפְּנֵי-זַעֲמָה וְקִצְפֹּן כִּי נִשְׂאֲתָנִי וּתְשַׁלִּכֵנִי :

(d) גְּבוּל-שְׁמֹת בַּל־יַעֲבִירוּ בַּל־יֵשְׁבוּ לְכִסּוֹת הָאָרֶץ :

הַמִּשְׁלַח מַעֲנִים בְּנַחֲלִים בֵּין הָרִים יִהְלְכוּ :

יִשְׁקוּ כָּל-חֵיתוֹ שָׂדֵי יִשְׁבְּרוּ פְּרָאִים צִמָּאִם :

(a) Attach the pronominal suffixes to the singular and plural of 12
פֹּעֵל (work). To which class of nouns does this belong? Explain
the use of the Composite Shēva in its declension.

(b) What is the significance of הַנִּשְׂא and יְתְאֲמָרוּ ?

(c) Where is the sign 'Athnāl used, and how does it influence
vowels in its neighbourhood ?

(d) Remark on the expression : כָּל-חֵיתוֹ שָׂדֵי

5. Translate :—

30

וַיָּבֹא הַמֶּלֶךְ דָּוִד וַיָּשָׁב לִפְנֵי יְהוָה וַיֹּאמֶר מִי אָנֹכִי אֲדָנִי
יְהוָה וְכוּ' בֵּיתִי כִּי הֵבִיאֲתָנִי עַד-הַלֵּם : וַתִּקְשֹׁן עוֹד זֹאת
בְּעֵינֶיהָ אֲדָנִי יְהוָה : וּמַה-יּוֹסִיף דָּוִד עוֹד לְדַבֵּר אֵלֶיהָ וְאָמְרָה
יִדְבַּעַת אֶת-עַבְדָּךְ אֲדָנִי יְהוָה : בְּעֶבֶר דְּבָרֶיךָ וּכְלָבֶךָ עָשִׂיתָ
אֶת כָּל-הַנְּדִיבָה הַזֹּאת לְהוֹדִיעַ אֶת-עַבְדְּךָ : עַל-כֵּן נִדְּלַתָּ יְהוָה
אֱלֹהִים כִּי-אִין כְּמוֹדִי וְאִין אֱלֹהִים וּזְלַתָּה כָּל אֲשֶׁר-שָׁמַעְנוּ
בְּאֻזְנֵינוּ : וְכוּ' כַּעֲמָה בִּישְׂרָאֵל גּוֹי אֶחָד בָּאָרֶץ אֲשֶׁר הִלְכוּ
אֱלֹהִים לְפִדְיוֹת-לֹו לָעַם וְלָשׁוֹם לוֹ שֵׁם וְלַעֲשׂוֹת לָקֶם הַנְּדִיבָה
וְנִרְאוֹת לְאַרְצָהּ מִפְּנֵי עַמָּהּ אֲשֶׁר פָּדִיתָ לָהּ מִמִּצְרַיִם גּוֹיִם
וְאַלְהֵיו : וַתִּכְנֹן לָהּ אֶת-עַמָּהּ יִשְׂרָאֵל לָהּ לָעַם עַד-עוֹלָם
וְאָמְרָה יְהוָה הֵייתָ לָחֶם לְאֱלֹהִים :

6. Render into Hebrew :

30

(a) And it came to pass when he saw her that he rent his clothes and said, Alas, my daughter! thou hast brought me very low and thou art one of them that trouble me, for I have opened my mouth unto the Lord and I cannot go back.

(b) Surely none of the men that came up out of Egypt, from twenty years old and upwards, shall see the land which I swore unto Abraham, because they have not wholly followed me.

(c) When Moses heard it he fell upon his face.

KHASI.

(For Female Candidates).

FIRST PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate the following into English : —

25

Ia ki ktien khlemrain kham buriel pynngen,
 La ki long kiba dei ruh wat kham kren;
 Wat juh leh ia ki kam kiba khlemrain,
 La ha ka ba dum ne ha ka ba phngain;
 Wat juh mlien ban kren ne ban leh mynthi,
 Ba ioh mangkariang noh ka jingtipsngi;
 Wat juh mlien ban nang, ban shait ka lorni,
 Ba ioh ka shongseng ka long allukhi;
 Wat juh mlien ban krensa ne ban lehsa,
 Ba ka duhbor noh ka akor bat ha;
 Wat juh piaw, wat juh at khu, wat juh khong,
 B'ki jingbha baroh ki kylla khongpong.

2. To what different things does the author of *Ka Jingsneng* 15
Tynmen compare a woman?

3. Explain the following in Khasi with reference to the context :— 10

(a) Nangta sa ban iapoi h'u shnong h'u thaw,

Ban hap ia Siew katha thoro ka kau.

(b) Ka kam bad ka ktien to da khan adkar,

Ba iu tharia bakhur ka kem ka lar.

4. Correct the following, and name the grammatical mistakes contained therein :— 25

(a) Ka la bha than eh ba phi la wan namar nga khmieh lynti ho ia phi.

(b) U la lah iap noh ba u da pang khieshoh.

(c) U John u kham bl a tam eh ia u James.

(d) Ki jngemsnam ynda u la Sait u Spain pat ia kito.

(e) Uba bha u briew to uba shu kuah eh ban iarap ia ki nong-kyrduh.

5. Translate the following into English :—

25

Kynmaw ba ym don ka lynti kaba suk sha ka shnong ka jingtip. Hynrei ka kham myntoi pynban ba kan long kumta. Ym dei ka jingsuk, hynrei ka jingpyrshang; ym dei ka bajem, hynrei kaba eh kaba pynlong rangbah ia u briew. Phim lah ban kot sha kano kano ka jinglong kaba don burom khlem da iashem bad ki jingeh, bad khlem da jop ia ki. Kita ki jingeh pynban ki long ki nonghikah jong ngi, kumjuh kumba ki jingbakla ki long ki nonghikai ia ngi. Haba u briew u la bakla shisien, u la ioh hikai kein na kata : kumta ki jingeh ki iarap ia ngi ba ngin jop.

KHASI.

(For Female Candidates).

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate the following into English :—

15

Ka don ka jingpynshitom kaba U Siem u juh pyndait nar, pyndait dieng, u saikhum u saitel, ka slung ka phatok, kino ki juh don ryngkat ha kaba un pyniaid ia la ka jingbishar bay rai ha kitei ki ain ki hukum; ka jingbishar ki Siem ka long kaba ityunad shibun nynhyndai, ki bishar ha ka dorbar bad ki rangbah kiba khraw batri; kim juh kyrkieh, ki wad ia ka jingshisha haduh ba ki kur u nongshah mudui ki aiti da kaba sugowbha ba un rem hapoh kano kano ka ain na kitei ba la ong haneng, lada ka long haduh u tangon u lyman ruh.

2. What, according to the author of *Ka K̄itub N̄imkhein Ki Khasi*, is the custom prevailing among the Khasis relating to succession ?

15

3. Explain the following in Khasi :—

30

(a) Kane ka rukom kaba sniew, kaba don ha pdeng ki khyntah ba ki ialeit khreh kot ha iing ki lok, ka mih na kaba ki iawad ban nang khlem da shitom.

(b) U briew um long kum ka sla kaba per ha um, kaba leit katba lam ka um ia ka, hynrei u long kum u dohkha uba jugi katba u mon hi.

(c) Ki briew ki juh ong 'To katta-katta eh iarad khyndiat khynt-soit.' Hynrei kynmaw ia ka jingong ba lada ngi sumar ia ka peisa, ka tyngka kan sumar hi ia lade.

4. Translate the following into English :—

25

Khnang ba phin long uba neh jingmut ha la ka kain, phi doi ban pyrkhat bha lypa. Phi dei ban thew ia ki nia'kum ha ka tarajur, ba phin khmieh la ka bit ne em ban leh ia ka. Te ynda phi kut la ka jingmut, la kumno kumno ruh, wat kylla shuh sha kamon lane sha kadiang. Bunsien ngi iohi ia ki briew kiba n̄op jingmut ba kim roi naba kim long kiba neh jingmut. Bad bunsien ngi shem ba kiba luin jingmut ki roi namar ba ki long kiba neh jingmut. Uwei u briew uba bha u la ong kumne, 'Phi hynrei phi long ia kaba phi mon ban

long : naba ka bor jong ka mon ka long kumta, lem bad ka jingkyrkhu U Blei, ba ia kano kano ba phi mon shisha ban long, ia kata hi phin long kein.'

5. *Shisha* me la kren kaba dei; hynrei katno kaba khraw ka jing- 9
isnei ba lymne ma-me, *hynrei tam eh* ma nga, ngim shym la kylla
long kata ka dak maham. Kane ka long ka daw ba ngin ainguh ia
U Blei, *ba ngin sheptieng ha khmat jong u*, bad ban kynmaw braber
ia ka tnga U Lot.

Parse the italicized words in this passage.

6. Mention three pairs of correlatives in Khasi, and compose 6
simple sentences illustrating their use.

HISTORY.

Paper-setters— { M. N. BASU, ESQ., M.A., *Bar.-at-Law*.
BABU ADHARCHANDRA MUKHERJEE, M.A.,
B.L.
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FIRST PAPER.

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„ BHUBANMOHAN SEN, M.A.
„ BIJOYCHANDRA SENGUPTA, M.A.
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BABU KIRANSANKAR RAY, M.A.
„ KISORIMOHAN GUPTA, M.A.
„ ATINDRANATH MUKERJEE, M.A.

Candidates are required to give their answers in their own words as far as practicable. ..

Only EIGHT questions to be answered, not more than TWO being taken from EACH of the groups.

The questions are of equal numerical value.

GROUP A.

1. Give a short account of the struggle between the English and the Britons. Briefly describe the political conditions of Great Britain at the beginning of the seventh century A.D.

2. Sketch the career of Dunstan and give an estimate of his work. Write what you know of Bede.

83. State the measures adopted by William I to establish a strong monarchy in England. To what extent was he successful in his endeavour?

GROUP B.

4. Describe John's quarrel with the Barons. Mention the main provisions of the Magna Charta.

5. Trace the causes, progress, and effect of the Peasants' Revolt of 1381.

6 Review the home and foreign policy of Henry VII. Why was such policy successful at the time ?

GROUP C.

7. Write a short history of the reign of Charles I during the period between 1629 and 1640.

8. Write critical notes on (a) the Treaty of Dover, (b) the Exclusion Bill, and (c) the Declaration of Indulgence.

9. Briefly sketch the history of the elder Pitt's ministry.

GROUP D.

10. What were the main grievances of the Irish after the Act of Union ? To what extent and by whom have they been removed ?

11. Enumerate the measures adopted in the nineteenth century for parliamentary reform.

12. Say what you know of *any four* of the following :—

(a) The Middlesex Election of 1768-9.

(b) The Armed Neutrality.

(c) The Gordon Riots

(d) Napoleon's Continental system.

(e) The Poor Law of 1834.

(f) The Anti-Corn-Law League.

HISTORY.

SECOND PAPER.

Examiners—	{	BABU DHARMADAS BANERJEE, M.A.
		BABU PRAMATHANATH BANERJEE, M.A.
		BABU DEBENDRANATH SEN, M.A.
		BABU SUBIMALCHANDRA SARKAR, M.A.
		BABU HEMCHANDRA RAY CHAUDHURI, M.A.
		BABU PRASANNAKUMAR BASU, M.A.
		ARUN SEN, ESQ., B.A. (Cantab).
	{	BABU RAKHALDAS BANERJEE, M.A.

Candidates are required to give their answers in their own words as far as practicable.

Only EIGHT questions to be answered, not more than TWO being taken from EACH of the groups.

The questions are of equal numerical value.

GROUP A.

1. Indicate the several causes that bound the Greeks together as one people. Why did these causes never produce any political union ?

2. 'By the Solonian constitution the whole political power was vested in the hands of the nobles. Cleisthenes resolved to make the Athenian constitution a democracy.' Elucidate this statement.

3. Review the character and career of Themistocles.

GROUP B.

4. Give an account of Socrates: his teachings, condemnation, and death.

5. Write a short sketch of the Peloponnesian War from its twelfth year (420 B.C.) to the dismissal of Alcibiades (407 B.C.).

6. Trace the relation between Greece and Macedon up to the assassination of Philip.

GROUP C.

7. Briefly sketch the original constitution of Rome. How was the power of the senate changed (a) after the Punic Wars, (b) at the end of the Roman Republic?

8. What circumstances led to the quarrel between Pompey and Caesar? Write a history of this quarrel up to the death of Pompey.

9. Summarize the course of events in the history of Rome from the assassination of Julius Caesar to the dissolution of the second Triumvirate.

GROUP D.

10. Give, in brief outline, the history of the Flavian Emperors, with a special account of the first of this line.

11. How did Constantine become the sole emperor? What led to the change of capital from Rome?

12. Write short notes on *any six* of the following:—(a) Tyrants of Greece; (b) Plataea; (c) Cimon; (d) Cnidus; (e) Censor; (f) Cannae; (g) Timoleon; (h) Comitia Tributa, and (i) law of majesty.

LOGIC.

Paper-setters— { BABU ADHARCHANDRA MUKHERJEE, M.A.
B.L.
J. R. BANERJEE, ESQ., M.A., B.L.
BABU AMBICA CHARAN MITRA, M.A.

Head Examiner—BABU AMBICACHARAN MITRA, M.A.

FIRST PAPER

Examiners— { BABU SYAMLAL LAHA.
BABU SURESCHANDRA DATTA.
BABU UPENDRANATH GUPTA.
BABU SURENDRALAL KUNDU.
BABU KUMUDEBANDHU CHAKRABARTI.
BABU JITENDRANATH DASGUPTA.
BABU HARIDAS BHATTACHARYA.
MR. ROY ROLAND THOMAS.
BABU BIRENDRACHANDRA MUKHERJEE.
BABU NALINIKUMAR DATTA.
BABU DHIRENDRANATH GHOSHAL.
BABU INDUBHUSAN SENGUPTA.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Either,

1. Define Logic, and point out its relation to Psychology. 15

.. *Or,*

Determine the scope of Logic, and indicate the uses of its study..

Either,

2. Distinguish between Formal and Material Truth. Which of them constitutes the proper subject-matter of Logic ? 15

Or,

Distinguish between Realism, Nominalism, and Conceptualism, and point out their bearing on the nature of the logical processes.

Either,

3. What do you understand by the Opposition of Propositions ? Explain its different forms, indicating their practical applications. 15

Or,

- (a) Classify Propositions, with examples.
(b) Reduce the following propositions to their logical form, indicating their quality and quantity :— 8
(i) The honest alone win the confidence of others.

- (ii) The critical spirit is not infrequently the fault-finding spirit.
- (iii) People seldom fully realize the difficulties of others.
- (iv) Not all are friends who profess to be so.

Either,

4. Distinguish between Deductive and Inductive Inference; and 15
discuss the question of their relative priority as modes of proof.

Or,

Indicate the different modes of testing the validity of the syllogistic argument, illustrating your answer with examples.

Either,

5. Distinguish between Inversion and Contraposition. How are 10
they related to Obversion ?

Or,

Draw the inferences which follow from the proposition 'None but the industrious deserve success.'

6. (a) Prove that in every figure, if the minor premiss is negative, 14
the major must be universal.

(b) Prove that an O proposition can be the major premiss only in the third figure, and the minor premiss only in the second.

7. Test *any four* of the following arguments :— 16

(a) If questions do not leak out, the University is not to blame ; but questions have leaked out : the University, therefore, is responsible for it.

(b) How can you say that he is not a careful examiner, when he is severe in examining his papers, as careful examiners are known to be ?

(c) The Vice-Chancellor of this University must be an ease-loving person, since in no day of the year does he grant an interview, even for five minutes, to all the graduates of the University.

(d) John evidently is not honest, for only the honest are straightforward in their conduct, while John is not so.

(e) Candour as a virtue ought to be cultivated therefore secrecy in war should be strongly condemned.

LOGIC.

SECOND PAPER.

Examiners—	{	BABU JOGINDRANATH MITRA.
		BABU SITARAM BANERJEE.
		BABU PHANINDRABHUSHAN CHATTERJEE.
		BABU SATISCHANDRA SEN.
		BABU KALIDHAN CHATTERJEE.
		BABU PURNACHANDRA SEN.
		BABU KSHIRODCHANDRA GUPTA
		BABU BIBHUTIBHUSHAN MITRA.
		BABU SASIBHUSHAN BASU.
		BABU KALIDAS SEN.
		BABU RAJANIKANTA DATTA.
	{	BABU KANAILAL BANERJEE.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. What are the characteristics of a valid Induction ? Explain 15
and illustrate them fully. *Either,*
2. (a) Is Elimination the essence of Induction ? Fully discuss 14
this question. What exactly has Elimination to do with the proof
of an hypothesis ? *Or,*
- (b) Distinguish clearly between (i) Perfect and Imperfect Induc- 14
tion, (ii) Complete and Incomplete Induction.
3. Can Induction be reduced to syllogistic reasoning ? Fully 16
discuss this question, examining the different attempts that have
been made to resolve the former into the latter. Briefly state and
explain the Deductive Method. *Either,*
4. (a) Explain how Plurality of Causes and Intermixture of 14
Effects affect the application of the Method of Agreement. What
advantage has the Method of Difference over the Method of Agree-
ment, and what advantage has the latter over the former ? *Or,*
- (b) State and explain the grounds of Inductive Inference. 14
Either,
5. (a) What is a cause ? What is a condition ? What is the 15
relation of the latter to the former ? What are the different ways
of viewing causation, and which of them is the most satisfactory ? *Or,*
- (b) What are the circumstances favourable to Discovery ? What 15
are the different forms of hypotheses ?

Either,

6. (a) Explain the nature of inference from analogy, and estimate its value. How does it differ from Induction ? 14

Or,

(b) What is Natural Classification ? Is a Natural Group determined by a Type or by a Definition ? Discuss this question. 14

7. Test *any three* of the following arguments :— 12

(a) Punishment must have some other and higher justification than the prevention of crime, for if punishment were only for the sake of example, it would be indifferent whether we punished the innocent or the guilty, since the punishment, considered as an example, is equally efficacious in either case.

(b) Women as a class have not been hitherto equal in intellect to men, therefore they are necessarily inferior.

(c) Moisture bedews a cold metal or stone when we breathe on it. The same appears on a glass of ice-water, and on the inside of windows when sudden rain or hail chills the external air. Therefore when an object contracts dew it is colder than the surrounding air.

(d) With various kinds of polished metals, no dew is deposited but with various kinds of highly polished glass dew is deposited. Therefore the deposit of dew is affected by the kinds of substances exposed.

(e) We observe very frequently that very poor handwriting characterises the manuscripts of able men, while the best handwriting is as frequent with those who do little mental work when compared with those whose penmanship is poor. We may, therefore, infer that poor penmanship is caused by the influence of severe mental labour.

MATHEMATICS.

Paper-setters— $\left\{ \begin{array}{l} \text{HON. JUSTICE SIR ASUTOSH MUKHERJEE,} \\ \text{KT., C.S.I., M.A., D.L.} \\ \text{DR. D. N. MALLIK, B.A., SC.D.} \\ \text{BABU NARENDRAKUMAR MAJUMDAR, M.A.} \end{array} \right.$

Head Examiner—DR. D. N. MALLIK, B.A., SC.D.

FIRST PAPER.

Examiners— $\left\{ \begin{array}{l} \text{BABU CHINTAHARAN RAY.} \\ \text{BABU SURENDRANATH CHATTERJEE.} \\ \text{BABU NARENDRAKUMAR MAJUMDAR.} \\ \text{BABU BAIKUNTHACHANDRA RAY.} \\ \text{BABU HEMCHANDRA SENGUPTA.} \\ \text{BABU UPENDRAMATH RAY.} \\ \text{BABU SATISCHANDRA GHOSH,} \\ \text{BABU KARUNAMAY KHASTGIR.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Select FOUR questions from Group A and THREE from Group B.

GROUP A.

1. (1) Show that a quadratic equation cannot have more than 6 two roots.

(2) If p and q are the roots of the equation 7

$$3x^2 + 6x + 2 = 0,$$

show that the equation whose roots are $-p^2/q$ and $-q^2/p$ will be

$$3x^2 - 18x + 2 = 0.$$

2. Solve:

$$(1) \sqrt{\frac{x}{y}} + \sqrt{\frac{y}{x}} = \frac{10}{3}, x + y = 10; \quad 7$$

$$(2) x^3 + y^3 = \frac{2}{3}xy, x + y = 3. \quad 6$$

Either,

3. If A varies as B when C is constant, and A varies as C when B is constant, then will A vary as BC when both B and C vary. 13

Or,

Find four proportionals such that the sum of the extremes is 21, 13 the sum of the means 19, and the sum of the squares of all four numbers 442.

4. (1) Find the number of permutations of n different things taken r at a time. 7

(2) Find the number of permutations of the letters of the word *NARES* taken all together. 6

5. (1) Write down the expansion of $(1-x)^{-2}$. 6

(2) Show that the coefficient of the middle term in the expansion of $(1+x)^{2n}$ is equal to the sum of the coefficients of the two middle terms in the expansion of 7

$$(1+x)^{2n-1}.$$

6. Obtain the expansion of $\log_e(1+x)$. 13

7. (1) Prove geometrically that 7

$$\sin 2A = 2 \sin A \cos A,$$

where A is a positive angle and $2A$ less than 90° .

(2) Prove that 6

$$\tan A + \cot A = 2 \operatorname{cosec} 2A.$$

8. Draw the graph of $y = \operatorname{cosec} x$ from $x=0$ to $x=\pi$. 13

9. In a plane triangle $b=540$, $c=420$, and $A=52^\circ 6'$; find B and C , given that 13

$$\log 2 = 0.30103, L \tan 26^\circ 3' = 9.6891430,$$

$$L \tan 14^\circ 20' = 9.4074189, \text{ and } L \tan 14^\circ 21' = 9.4079453.$$

10. In any plane triangle prove that

$$(1) \frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}; \quad 6$$

$$(2) a \sin (B-C) + b \sin (C-A) + c \sin (A-B) = 0. \quad 7$$

GROUP B.

11. (1) Prove that the square of the principal ordinate of any point on a parabola is equal to the rectangle contained by the latus rectum and the abscissa.

(2) If PL be drawn at right angles to $\dot{A}\dot{P}$, meeting the axis in L , NL is always equal to the latus rectum.

12. (1) Show that the sub-tangent of a parabola is bisected at the vertex.

(2) If the tangent at P meets the tangent at the vertex in Y , prove that $AY^2 = AS \cdot AN$, where PN is the ordinate of P .

13. (1) The tangents to an ellipse at the ends of a diameter are parallel to the system of chords bisected by the diameter.

(2) Show that the line joining the points of contact of two parallel tangents is a diameter.

14. (1) The tangents at the ends of a focal chord of an ellipse intersect on the directrix.

(2) By drawing the tangent at B , prove that

$$CS \cdot OX = CA^2.$$

15. (1) Prove that the projection of straight a line on a plane is itself a straight line.

(2) The angle which a straight line makes with its projection on a plane is less than that which it makes with any other straight line which meets it in that plane. 7

16. If two straight lines are parallel, and if one of them is perpendicular to a plane, prove that the other is also perpendicular to the same plane. 16

17. In a tri-hedral angle the sum of any two of the face angles is greater than the third. 16

MATHEMATICS.

SECOND PAPER.

{ BABU SITESCHANDRA KAR.
 BABU NARESCHANDRA GHOSH.
 BABU MUKTIDARANJAN RAY.
 Examiners—{ BABU NAGENDRANATH SWARNAKAR.
 BABU BANKIMDAS BANERJEE.
 BABU DEBAPRASAD GHOSH.
 BABU NALINIMOHAN BOSE.
 { BABU SATYENDRANATH BOSE.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal numerical value.

Two marks are reserved for neatness.

Not more than SEVEN questions are to be attempted.

1. (1) Explain the meaning of the expression 'rate of displacement.' How would you represent it graphically, when it is constant?

(2) A particle moves through 5 ft. in 2.5 seconds. Find its velocity in centimetres per minute.

(1 ft. = 30.4 cm. nearly.)

2. (1) Prove graphically that the space described by a particle, whose velocity changes uniformly, in time t is $\frac{1}{2}(u+v)t$, where u is the initial and v the final velocity.

(2) The velocity of a particle at the end of 0.04, 0.08, 0.12 hour is 2.4, 4.8, 7.2 miles per hour respectively. Find the space described in 1 hour.

3. (1) Prove the formula $v^2 - u^2 = 2fs$, where v is the final and u the initial velocity, under an acceleration f , the distance traversed being s .

(2) A particle is projected vertically upwards with a velocity of 64 ft. per second. Find the height of the highest point reached.

4. (1) State and prove the principle of parallelogram of velocities. Hence show how the relative velocity of one body with respect to another may be determined.

(2) Two trains, each 200 ft. long, are moving in parallel lines with velocities of 20 and 30 miles an hour respectively *in the same direction*. How long will they be in passing?

5. State Newton's third law of motion.

Prove that in the case of direct impact of two spheres, the total momentum of the bodies remains unchanged.

6. (1) A particle is projected horizontally from the top of a tower. Prove that its path is a parabola.

(2) Find the velocity of projection, if the height of the tower is 144 ft. and if the particle reaches the ground at a distance of 60 ft. from the bottom

7. (1) Explain how masses and forces are measured.

(2) Two particles are connected by a light inextensible string passing over a smooth fixed pulley. If the system moves with an acceleration of 109 cm. per second per second ($g=981$), compare the masses of the particles.

8. (1) State and prove the principle of triangle of forces.

(2) The magnitude and direction of a certain force is given, as well as the direction of a second force. If the magnitude of the resultant is also given, find its direction.

9. (1) Show how to reduce any number of forces in a plane to a single force and a single couple.

(2) Deduce the conditions of equilibrium of a body under any number of forces in a plane.

10. (1) Explain how you would find the centre of gravity of a triangular lamina experimentally. Where would the centre of gravity be if the body be a uniformly thick triangular board?

(2) On the base of an isosceles triangle (height 3 ft. and base 2 ft.) an equilateral triangle is described. Find the position of the centre of gravity of the figure formed by the two triangles.

11. (1) Show how to find the resultant of two parallel forces when they are unlike.

(2) Parallel forces, each equal to P , act at the angular points of a square. Find the magnitude and point of application of the resultant.

12. (1) Explain the meaning of the expressions 'limiting friction' and 'coefficient of friction.' How would you experimentally determine this coefficient?

(2) A heavy rod rests with one end on a rough horizontal plane and the other end against a smooth vertical wall. Find the condition of equilibrium.

13. Define a 'foot-pound.' Express a foot-pound in terms of an erg, given

$$\begin{aligned} 1 \text{ lb.} &= 453.6 \text{ grammes nearly,} \\ 1 \text{ ft.} &= 30.48 \text{ cm. nearly,} \\ g &= 32 \text{ ft. per second per second.} \end{aligned}$$

14. (1) Define 'power' and 'weight.' What do you understand by 'mechanical advantage'?

(2) Describe 'the wheel and the axle,' and find its mechanical advantage.

15. (1) Prove that the kinetic energy acquired by a particle falling freely under gravity is equal to the work done by gravity.

(2) A body falls from a height of 30 ft. Find its kinetic energy at the moment it strikes the ground, if the mass of the body is 20 lb.

PHYSICS.

Paper-setters— $\left\{ \begin{array}{l} \text{BABU RAMENDRASUNDAR TRIVEDI, M.A.} \\ \text{DR. D. N. MALLIK, B.A., Sc.D., F.R.S.E.} \\ \text{RAI KUMUDINIKANTA BANERJEE, BAHADUR} \\ \text{M.A.} \end{array} \right.$

Head Examiner—BABU RAMENDRASUNDAR TRIVEDI, M.A.

FIRST PAPER.

Examiners— $\left\{ \begin{array}{l} \text{BABU RAJKUMAR BANERJEE, M.A.} \\ \text{BABU GANGADHAR MUKHERJEE, M.A.} \\ \text{BABU NIBARANCHANDRA RAY, M.A.} \\ \text{BABU MANORATHADHAN DE, M.A.} \\ \text{BABU RAJANIKANTA DE, M.A.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

Not more than SEVEN questions to be attempted.

The questions are of equal numerical value.

1. Distinguish between potential and kinetic energy, with illustrations.

A railway train is going uphill with a constant velocity. What is the source from which the energy of the train is supplied?

Describe the various transformations of energy that go on in this case.

2. Explain clearly what you understand by atmospheric pressure.

Describe experiments to prove the existence of atmospheric pressure. How is it determined? If it is equal to that of 32 inches of mercury, find its magnitude. [Density of mercury = 13.6.]

3. Describe a method of determining the specific gravity of a liquid.

A Nicholson's hydrometer sinks to a certain mark in a liquid of specific gravity 0.6; but it takes 120 grammes to sink it to the same mark in water. What is the weight of the hydrometer?

4. Explain what you mean by latent heat of fusion.

Find the latent heat of fusion of ice from the following data:—

Weight of the calorimeter = 60 grammes.

Weight of calorimeter and water = 460 grammes.

Temperature of water (before ice is put in) = 38°C.

Temperature of the mixture = 5°C.

Weight of the calorimeter, water, and ice = 618 grammes.

Specific heat of the calorimeter = 0.1.

5. State the law connecting the volume, pressure, and temperature of a gas.

At what temperature would the volume of a gas be doubled if the pressure at the same time increase from that of 700 to 800 millimetres of mercury?

6. Define specific heat. Describe an experiment to determine the water equivalent of a copper calorimeter and the specific heat of copper.

7. Define the coefficients of linear and cubical expansion. How is the coefficient of linear expansion determined in the case of a solid ?

A cube whose sides are each 100 cm. at 0°C . is raised to 100°C . If the sides become each 101 cm., find the coefficients of linear and cubical expansion.

8. A vibrating tuning-fork is placed at the mouth of an open jar, and water is poured into the jar gradually. Explain what will happen.

Explain how you would determine the velocity of sound in air by an experiment of this kind.

9. Describe the motion of a sounding body. How would you demonstrate the nature of this motion experimentally ?

Explain, as far as you can, the mode of propagation of sound through air.

PHYSICS.

SECOND PAPER.

Examiners— $\left\{ \begin{array}{l} \text{BABU RADHIKAMOHAN CHAUDHURI, M.A.} \\ \text{BABU RADHAGOBINDA BHAWANI, M.A.} \\ \text{BABU SUSHILCHANDRA CHAKRABARTI, M.A.} \\ \text{BABU JOGESCHANDRA MUKHERJEE, M.A.} \\ \text{BABU BHABATARAN BRAHMACHARI, M.A.} \end{array} \right.$

*Candidates are required to give their answers in their own words
as far as practicable.*

Not more than SEVEN questions to be attempted.

The questions are of equal numerical value.

1. Distinguish between umbra and penumbra.

Indicate the formation of umbra and penumbra due to a spherical obstacle, when the source of light is a luminous sphere, (a) when the latter is larger than the obstacle, (b) when it is smaller, (c) when the spheres are equal.

2. A rod is placed at a considerable distance from a concave reflecting mirror, and perpendicular to its axis. Describe by means of suitable diagrams the changes in its image as the rod is made to approach the mirror, parallel to itself, till it is very near the mirror.

3. Define the following terms : Principal focus, virtual image.

Illustrate the meaning of each of these terms by means of diagrams, in the case of a convex lens.

A rod 5 cm. long is held in front of a convex lens and forms an image 25 cm. long upon a screen (placed parallel to the rod) at a distance of 100 cm. from the lens. What is the focal length of the lens ?

4. Describe and explain the use of a spectroscope.

Describe a solar spectrum.

5. Describe (a) the construction and the mode of action of an electrophorus, (b) a gold-leaf electroscope.

6. Two similar deep metal jars are placed on the caps of two similar electroscopes at some distance apart, the caps being connected by a fine wire.

(a) A positively electrified ball is lowered into one of the jars without touching the sides.

(b) The wire connexion is broken by means of a silk thread.

(c) The ball is removed without touching the sides.

Explain the effects observed on the two sets of gold leaves.

7. State Ohm's law.

Two cells, each having a resistance of 2 ohms and an E.M.F. of 1.5 volts, are connected in series to the binding screws of a galvanometer having a resistance of 7 ohms. Find the current passing through the circuit. If the binding screws are also connected by a resistance of 7 ohms, how is the current through the galvanometer affected?

8. Describe the construction of a tangent galvanometer.

A circuit includes a water voltameter and a tangent galvanometer. State the relation between the deflexions of the galvanometer and the amounts of hydrogen liberated.

9. Explain the action of 'Barlow's Wheel,' or any arrangement for producing continuous rotation by electrical means. Describe typical experiments which support the explanation you give.

10. Describe the construction of an electromagnet. How does it differ in construction and action from (a) a natural magnet (b) an artificial magnet?

How would you use it to demonstrate the nature of induced currents?

CHEMISTRY.

RAI CHUNILAL BASU, BAHADUR, M.B.,
F.C.S.

Paper-setters—

DR. P. C. MITTER, M.A., PH.D.

BABU JYOTIBHUSHAN BHADURI, M.A.

*Head Examiner—*BABU JYOTIBHUSHAN BHADURI, M.A.

FIRST PAPER.

<i>Examiners—</i>	{	BABU ASUTOSH MAITRA.
		BABU HARIDAS MUKHERJEE.
		BABU KSHITISCHANDRA RAY.
		MR. B. K. SINGH.
		BABU JATINDRAMOHAN DATTA.
		BABU PRIYADARANJAN RAY.
		BABU JOGESCHANDRA GHOSH.
		BABU JNANENDRACHANDRA GHOSH.
		BABU JNANENDRANATH MUKHERJEE.
		BABU ANANDAKISOR DAS.
		MR. K. G. NAYAK.
		BABU SATISCHANDRA MUKHERJEE

*Candidates are required to give their answers in their own words
as far as practicable.*

Not more than SIX questions to be attempted.

The questions are all of equal numerical value.

1. Explain the law of chemical combination by *volume*, and illustrate your answer by three examples.

100 c.c. of marsh gas at 27° and 750 mm. are exploded with an excess of oxygen. Determine the weight of water and the volume of carbon dioxide formed at N.T.P.

2. A bottle of muddy river water is given to you. How would you proceed to prepare a sample of pure water from it, and how would you obtain the soluble and insoluble impurities present in it? Sketch the apparatus you would use.

3. How does sulphur occur in nature? How is it ordinarily obtained? Describe its allotropic modification, and show how would obtain a sample of chemically pure sulphur.

4. Describe how nitric acid is obtained, and mention the impurities usually found in the acid. How would you obtain from it (a) oxygen, (b) nitrogen, and (c) ammonia?

5. If quicklime be exposed to air what chemical changes do you suppose will occur, and what substance will be left after the lapse of considerable time? What would be the action on the residue of (a) heat, (b) pure water, (c) aqueous solution of carbon dioxide, and (d) dilute hydrochloric acid? Give equations.

6. How are the following substances prepared: (a) copper nitrate, (b) ferric chloride, (c) pure sodium chloride: (d) magnesium sulphate? Describe their properties and uses, and give one test only for the basic and acidic radicals in each.

7. A solution of sodium hydrate is prepared containing 4.74 grammes of that solid per litre. Calculate the volume of hydrogen chloride at N.T.P. which, when dissolved in water, will neutralize 60 c.c. of the alkali solution.

(Na=23. Cl=35.5.)

CHEMISTRY.

SECOND PAPER.

{ BABU DHIRENDRANATH MUKHERJEE.
 BABU PHANIBHUSHAN CHATTERJEE.
 BABU PRIYABRATA SARKAR.
 BABU SARATCHANDRA JANA.
 DR. D. N. CHAKRABARTI.
 Examiners— { BABU SATISCHANDRA GANGULI.
 BABU SURYANARAYAN SEN.
 BABU RAMESCHANDRA CHAKRABARTI.
 DR. SUDHAMAY GHOSH.
 BABU KUMUDNATH CHAUDHURI.
 BABU JNANENDRANATH SEN.
 { BABU PHANINDRANATH DAS.

Candidates are required to give their answers in their own words as far as practicable.

Not more than six questions may be attempted.

The questions are all of equal numerical value.

1. A compound containing sodium, sulphur, oxygen, and hydrogen gave on analysis the following result:—

Na=14.31 per cent.
 S=9.97 „ „
 H=6.25 „ „
 O=69.47 „ „

Calculate the formula on the assumption that all the hydrogen in the compound is present in combination with oxygen as water of crystallization.

Explain the principles involved in the calculation.

(Na=23. S=32. O=16.)

2. What are the normal constituents of the atmosphere? Give reasons for considering that air is a mechanical mixture and not a chemical compound.

3. Describe fully how you would determine the composition of ammonia by volume.

4. How would you prepare sulphuretted hydrogen? What are its usual impurities, and how would you obtain the pure gas? Sketch the apparatus you would use.

Explain fully the use of this gas as an analytical reagent.

5. How are the following substances prepared:—(a) wood charcoal, (b) animal charcoal, (c) gas carbon, and (d) soot?

What are their properties and principal uses?

6. In what respect is it unsatisfactory to say that 'on heating zinc a white powder is formed from it.' What is the true explanation of the formation of the white powder, and what experiments would you perform in support of your answer?

7. State the properties and chief uses of metallic copper and its oxides. How are the oxides prepared?

BOTANY.

Paper-setters— { S. C. MAHALANOBIS, Esq., B.Sc., F.R.S.E.
C. C. CALDER, Esq., B.Sc.

FIRST PAPER.

Examiners— { BABU SAHAYRAM BOSE, M.A.
MOTHER DOLORES KNIGHT, B.A., B.T.

Candidates are required to give their answers in their own words as far as practicable.

Answer FIVE questions only.

The questions carry equal marks.

1. Write a short essay on vegetative reproduction among flowering plants, giving examples.

2. Describe the processes which lead to the conversion of an ovule into a seed, and state what is the difference between albuminous and exalbuminous seeds.

3. Give a short summary of the various contrivances favouring the cross fertilisation of flowers.

4. What do you understand by "alternation of generations"? Does this phenomenon occur among flowering plants?

5. Describe as fully as you can *any one* of the following families:—

- (a) Compositae.
- (b) Acanthaceae.
- (c) Graminaceae.

6. Give an account of the life-history, with special reference to the mode of reproduction, of any fungus you have examined.

7. What is respiration? Describe some simple experiment by which you can prove that plants breathe.

BOTANY.

SECOND PAPER.

Examiners—{ BABU HARENDRANATH MITRA, M.A.
BABU SATYASARAN SINHA, B.Sc. (Illinois).

Candidates are required to give their answers in their own words as far as practicable.

Only FIVE questions are to be answered.

The questions are of equal numerical value.

1. Describe the structure of the transverse section of a dicotyledonous stem in which secondary thickening has just commenced.
2. How does a plant take in food materials from the soil?
3. Describe the various parts of a leaf and give an account of the modifications they may undergo.
4. Give an account of the various contents of a growing cell.
5. What is meant by venation of leaves? Give an account of the parallel type of venation.
6. Give a comparative account of the inflorescences of the mustard, the wheat and the cockscomb.
7. What is a fruit? How do you distinguish true fruits from spurious ones? Illustrate your answer by examples.

PHYSIOLOGY.

Paper-setters—{ HON. SIR NILRATAN SARKAR, K.T., M.A., M.D.
RAI BAHADUR DR. UPENDRANATH BRAHMA-
CHARI, M.A, M.D., PH.D.
MAJOR D. MCCAY, M.B., I.M.S.

FIRST PAPER.

Examiner—DR. B. C. GHOSH, M.A., M.B., B.C., (Cantab).

Candidates are required to give their answers in their own words as far as practicable.

The questions are of the same numerical value.

Not more than FOUR questions to be answered.

1. Write a careful note on the blood, stating what you know regarding the histology of the corpuscles of the blood.
2. Give a short account of the changes that take place in muscle during contraction.

3. What are the causes of the sounds of the heart? Trace the course of the flow of blood through the heart.
4. Describe the mechanism of respiration.
5. Describe the digestion and absorption of starchy foods, mentioning the different secretions that assist in the digestion and absorption of starch.

PHYSIOLOGY.

SECOND PAPER.

Examiner—BABU NIBARANCHANDRA BHATTACHARYYA, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of the same numerical value.

Not more than FOUR questions to be attempted.

1. What are the lacteals? What is the difference between Chyme and Chyle?
2. What is the difference in function between the anterior and posterior nerve roots?
3. What is a reflex action? Give an example and trace the afferent and efferent paths of the nervous impulses calling forth the reflex.
4. Write a careful note on the functions of the spinal cord.
5. State what you know regarding the sense of taste.

GEOGRAPHY.

Paper-setters— $\left\{ \begin{array}{l} \text{BABU JNANCHANDRA GHOSH, M.A.} \\ \text{F. W. PAPWORTH, ESQ., B.A.} \\ \text{A. MERCER, ESQ., B.Sc.} \end{array} \right.$

Examiner—BABU SARATLAL BISWAS, M.Sc.

FIRST PAPER.

Candidates are required to give their answers in their own words as far as practicable.

Candidates are to answer Questions 1 and 10, and any FOUR, but not more than FOUR, of the other questions.

The figures in the margin indicate full marks.

1. Describe carefully the country represented upon map A. Upon the map draw carefully in ink the course of the main stream flowing past S. Draw a section of the country from X to Y, and estimate whether Z is visible from S. 20

3. Write a careful note upon the type of climate which is known as 'Mediterranean,' stating the chief vegetable products of this type and where it is met with.
4. Give an account of the origin and movements of cyclones. What do you understand by an anticyclone?
5. Describe the steps you would take to enlarge a given map. Suppose that you were given a particular map drawn upon a scale of 4 inches to 1 mile, show how you would reduce this map to half the size.
6. Give an account of the construction and the working of a mercury barometer (illustrate your answer by diagrams). How does this differ from an aneroid barometer? Explain how the instrument may be used to gauge the height of a mountain.
7. Explain, using illustrative diagrams, the theory of the tides round this world. Why are these tides sometimes higher than at other times, and why are they generally later from day to day?
8. Study the undernoted tables of imports and exports, and state (a) what are the chief raw materials and unmanufactured articles referred to in I., (b) what are the chief articles wholly or mainly manufactured referred to in II. Study these figures and write a carefully considered note as to the conclusions which a study of these figures leads you to make.

IMPERIAL TRADE.

I. IMPORTS INTO THE UNITED KINGDOM.

Items.	1911 £	1912 £	1913 £	1914 £	1915 £
	(thousands)	(thousands)	(thousands)	(thousands)	(thousands)
Raw Materials and Articles mainly unmanufactured:—					
Consigned from Foreign countries	171,227	192,528	190,283	153,015	156,193
Consigned from British Possessions	76,931	83,139	91,538	83,515	121,356
Total	248,158	275,667	281,821	236,530	280,549

II. EXPORTS OF UNITED KINGDOM.

	1911 £	1912 £	1913 £	1914 £	1915 £
	(thousands)	(thousands)	(thousands)	(thousands)	(thousands)
Articles wholly or mainly manufactured:—					
To Foreign countries	221,838	228,470	237,540	186,482	166,496
To British Possessions	140,383	156,558	173,828	152,151	126,430
Total	362,221	385,028	411,368	338,633	292,926

9. Point out the remarkable difference between the climates of the Mediterranean and Northern France, seeing that these countries are in the same latitude. Explain the reason of this and show how this difference of climate causes the vegetable products and the occupations of the people to be of so different a character.

9. When it is 12 noon at Bombay what is the time at (a) Basra, 15
(b) Calcutta, (c) Singapore?

Bombay 73°E.

Calcutta 88°E.

Basra 47°E.

Singapore 103½°E.

10. Upon the map B, of Asia, with which you are provided, the 20
features have been marked for the summer. Mark with arrows the di-
rections in which the winds blow during the months from April to
July, and show by means of different types of shading the rainfall
which the continent receives during the summer. Mark and name the
principal ocean currents which wash the Pacific coast of Asia. What
changes have these upon the climate?

GEOGRAPHY.

SECOND PAPER.

*Candidates are required to give their answers in their own words
as far as practicable.*

*Candidates are to answer Question 1, and any FIVE, but not
more than FIVE, other questions.*

The figures in the margin indicate full marks.

1. Upon the accompanying map of the world insert and name the 20
following:—

(a) Lille, Bagdad, Colombo, Melbourne, Canton, Trieste, Ber-
lin, Lyons, Pittsburg, Essen, Karachi, Basra, Leeds.

(b) The chief ports on the Atlantic Ocean, and the trade routes
which connect them.

(c) The mountains which form the land boundaries of India,
Burmah, and the chief mountain passes through which communi-
cation is maintained with the neighbouring countries.

2. Name the chief markets for Australian flour, gold, hides, skins, 16
horses, and wool.

3. Give an account of the principal coalfields at present worked in 16
South Africa, the principal markets for the coal produced, and the
means of transport to those markets.

4. Describe carefully the basin of the Yang-tse-kiang. What mea- 16
sure of its commercial importance does China owe to the three rivers—
the Yang-tse-kiang, the Hoang-he, the Si-kiang?

5. Draw a map of India and indicate upon it the principal centers 16
of manufacture, and the localities where her chief mineral and vegeta-
ble products are obtained.

6. Describe the foreign trade of Japan. Sketch the main lines of 16
its transport, and state what commercial developments are likely to
take place in the future.

7. Briefly compare South America with Africa in respect to con- 16
figuration, elevation, slope, positions of mountains and rivers, density
of population, and probable rapidity of industrial development.

8. What are the chief exports and imports of New Zealand, and 16
where are the chief seaports situated?

9. Contrast the natural and commercial resources of Canada and the United States. 16

10. What are the principal food imports of the British Isles? State where they respectively come from. 16

11. Write a short note on *seven* of the following places. State what geographical conditions, if any, have contributed to the growth of their importance:—Chicago, Tokio, Calcutta, Singapore, Bombay, Constantinople, Marseilles, Calais, Liverpool, and Hamburg. 16

B.A. Examination.

1918.

ENGLISH.

{ <i>Paper-setters</i> - { <i>Pass and Honours</i>).	{ J. N. DAS GUPTA, ESQ., B.A. (<i>Oxon</i>).
	{ DR. H. STEPHEN, M.A., D.D.
	{ REV. DR. G. HOWELLS, M.A., PH.D.,
	{ B LITT., B.D.
	{ REV. FATHER F. X. CROHAN, S.J.
	{ DR. H. C. MUKHERJEE, M.A., PH.D.

FIRST HONOURS PAPER.

Examiner—T. S. STERLING, ESQ., M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

*Candidates are to answer Questions 5 and 10, TWO of the
Questions 1-4, and TWO of the Questions 6-9.*

1. 'The English Drama as we have it in Shakspeare was the **slow** 13
growth of several centuries.' Expand this statement.
2. In Portia Shakspeare seems to have tried what he could do in 13
working out a scheme of an amiable, intelligent, and accomplished
woman.' Comment on this remark, and give illustrative references.
3. Write a critical review of the main problems connected with the 13
interpretation of the Tragedy of Macbeth.
4. Discuss the *Merchant of Venice* and *Macbeth* from the stand- 13
point of their bearing on the growth of Shakspeare's mind and art.
5. Explain and annotate, in connexion with their contexts, *any* 24
three of the following passages:—

- (a) If Hercules and Lichas play at dice
Which is the better man, the greater throw
May turn by fortune from the weaker hand:
So is Alcedis beaten by his page;
So may I, blind fortune leading me,
Miss that which one unworthier may attain
And die with grieving.

- (b) The poet
Did feign that Orpheus drew trees, stones and floods.

Since nought so stockish, hard and full of rage
 But music for the time doth change his nature.
 The man that hath no music in himself
 Nor is not moved with concord of sweet sounds,
 Is fit for treasons, stratagems and spoils;
 The motions of his spirit are dull as night,
 And his affection dark as Erebus;
 Let no such man be trusted.

- (c) My Genius is rebuked; as, it is said,
 Mark Antony's was by Caesar. He chid the sisters
 When first they put the name of king upon me,
 And bade them speak to him: then prophet-like
 They hailed him father to a line of kings:
 Upon my head they placed a fruitless crown
 And put a barren sceptre in my gripe
 Thence to be wrenched with an unlineal hand
 No son of mine succeeding.
- (d) Bring me no more reports; let them fly all:
 Till Birnam wood remove to Dunsinane,
 I cannot taint with fear. What's the boy Malcolm?
 Was he not born of woman? The spirits that know
 All mortal consequences have pronounced me thus:
 Fear not, Macbeth; no man that's born of woman
 Shall e'er have power upon thee. Then fly, false thanes,
 And mingle with the English epicures:
 The mind I sway by and the heart I bear
 Shall never sag with doubt nor shake with fear.

6. Indicate the sources of *Paradise Lost*, and critically discuss 13
 Milton's treatment of his subject.

7. Trace the general argument of *Paradise Lost*, Books III and IV. 13
 and discuss the personality and character of Satan as portrayed
 therein.

8. Write a critical estimate of Byron, the man and the poet. 13

9. 'Childe Harold is full of the poet's self.' Justify this, stated 13
 more especially in reference to Cantos III and IV.

10. Annotate, with reference to their respective contexts, the fol- 24
 lowing passages:—

- (a) Blind Thamyras and blind Maeonides
 And Tiresias and Phineas, prophets old.
- (b) Embryos and idiots, eremites and friars
 White, black and grey with all their trumpery.
- (c) So clomb this first grand thief into God's fold,
 So since into His church lewd hirelings climb.
- (d) While Waterloo with Cannae's carnage vies,
 Morat and Marathon twin names shall stand.
- (e) Lausanne! and Ferney! ye have been the abodes
 Of names which unto you bequeath'd a name.
- (f) But thou, of temples old, or altars new
 Standest alone, with nothing like to thee—
 Worthiest of God, the holy and the true.

ENGLISH.

SECOND HONOURS PAPER.

Examiner—DR. H. C. MUKHERJEE, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Either,

1. 'There is more of Shakespeare in this amazing character (Falstaff) than in all the poetry of *Richard II.*' 16

How does Raleigh prove the above statement?

Or,

How does Shakespeare utilize his knowledge of contemporary life and manners for the characters and incidents of his plays?

2. Examine any two of the following statements:— 16

(a) 'Shakespeare sacrifices virtue to convenience, and is so much more careful to please than to instruct, that he seems to write without any moral purpose.' (JOHNSON).

(b) 'One wonders what Heminge and Condell would have thought if they had applied to Shakespeare for a new comedy, and the great dramatist had told them that he could not possibly comply with their wishes, he being then in his Tragic Period.' (HALLIWELL-PHILLIPS).

(c) '*Measure for Measure* is a play as full of genius as it is of wisdom. Yet there is an original sin in the nature of the subject, which prevents us from taking a cordial interest in it.' (HAZLITT).

3. Explain any three of the following:— 18

(a) Shakespeare's villains and evil characters belong to the terrible army of cripples, who employ the best skill of their four senses to avenge upon others the loss of a fifth.

(b) Shakespeare exhibits beauty as Marlowe exhibits power, freed from all realistic human conditions.

(c) Poetry, like religion, is outraged when it is made a platform for the exhibition of their own talent and passion by those who are its ministers.

(d) Miranda, that is to say, is Prospero's Miranda.

(e) The brain that devised *The Tempest* was not unstrung by fatigue.

Either,

4. '*The Waverley Novels* do not portray character but action.' 13

How far is this true of *A Legend of Montrose*?

Or,

Discuss and explain the statement, 'Dugald Dalgetty is to *A Legend of Montrose* what Falstaff is to *Henry IV.*'

5. Explain, with reference to the context, any two of the following:— 12

(a) To use the canting phrase of the saints in the English Parliament, the sons of Zeruah are still too many for us.

(b) He mentioned the celebrated settlement of the Five Undertakers in the Lewis, as part of a deliberate plan, formed to introduce strangers among the Celtic tribes.

(c) I could wish that the fair Briseis were removed from our camp before the return of our Highland Achilles.

Either,

6. Write a short note on the mysticism of Blake, illustrating it by references to your text. 13

Or,

Compare the letters of Lamb and Scott as illustrations of self-revelation.

7. Explain, with reference to the context, *any two* of the following:— 12

(a) It is here that the swarthy daughters of Cadmus may hang their trophies on high.

(b) I declined to try avoiding the imprisonment by the help of Perry's offer of the famous secret 'Book.'

(c) I have never heard anything of Ada, the little Electra of my Mycenae.

ENGLISH.

THIRD HONOURS PAPER.

Examiner—REV. DR. G. HOWELLS, M.A., PH.D., B.LITT.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Give in your own words the substance of the following passage, and comment on what you consider to be its leading idea:— 25

If the power of speech is a gift as great as any that can be named, —if the origin of language is by many philosophers even considered to be nothing short of divine,—if by means of words the secrets of the heart are brought to light, pain of soul is relieved, hidden grief is carried off, sympathy conveyed, counsel imparted, and wisdom perpetuated, if by great authors the many are drawn up into unity, national character is fixed, a people speaks, the past and the future, the East and the West, are brought into communication with each other,—if such men are, in a word, the spokesmen and prophets of the human family,—it will not answer to make light of literature or to neglect its study; rather we may be sure that, in proportion as we master it, in whatever language, and imbibe its spirit, we shall ourselves become in our own measure the ministers of like benefits to others, be they many or few, be they in the obscurer or the more distinguished walks of life, who are united to us by social ties, and are within the sphere of our personal influence.

2. Indicate and elucidate the purport of *one* of the following:— 25

(a) Our thoughts are greater than ourselves, our dreams
 Ofttimes more solid than our acts: our hope
 With more of substance and of shadow teems
 Than our thin joys, and hath a nobler scope.

O sons of men! there is a Presence here,
 Here in our undying spirits, which
 With an unearthly wealth doth oft enrich
 The reason hourly sanctified by fear.
 Herewith men prophesy, herewith men press
 To their own hearts in studious loneliness
 Forms greater than they dare to tell: beneath
 The shadow of their own imaginings
 They sit, withdrawn and sheltered; for a wreath
 Encircles them, a wreath of Angels' wings.

- (b) The sea awoke at midnight from its sleep,
 And round the pebbly beaches far and wide,
 I heard the first wave of the rising tide
 Rush onward with uninterrupted sweep—
 A voice out of the silence of the deep,
 A sound mysteriously multiplied
 As of a cataract from the mountain's side
 Or roar of winds upon a wooded steep.
 So comes to us at times, from the unknown
 And inaccessible solitudes of being,
 The rushing of the sea-tides of the soul;
 And inspirations, that we deem our own,
 Are some divine foreshadowing and foreseeing
 Of things beyond our reason or control.

3. Write an Essay on *one* of the following subjects:—

50

- (a) The profession of arms.
 (b) Possibilities of the moral, intellectual, and material advancement of the world during the twentieth century.
 (c) The influence of a great humorist on the men and women of his time.
 (d) The woman's cause is man's; they rise or sink
 Together, dwarfed or God-like, bond or free;
 If she be small, slight-natured, miserable,
 How shall man grow?

ENGLISH.

FOURTH HONOURS' PAPER.

Examiner—REV. FATHER F. X. CROHAN, S.J.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks.

Either,

1. What indications do you gather from the style and general tone of *The Tempest* as to its position, in point of time, among Shakespeare's plays? 10

Or,

Give a brief description of the Masque included in *The Tempest*, indicating clearly at what stage in the play it is introduced. What do you gather from it as to the characteristic features of a Masque?

2. Give the context of, and explain where necessary, the following passages:— 15

- (a) I find my zenith doth depend upon
A most auspicious star, whose influence
If now I court not but omit, my fortunes
Will ever after droop.
- (b) The latter end of his commonwealth forgets the beginning.
- (c) This is the tune of our catch, played by the picture of Nobody.
- (d) Graves at my command
Have waked their sleepers, oped, and let them forth.
- (e) And my ending is despair,
Unless I be relieved by prayer,
Which pierces so that it assaults
Mercy itself and frees all faults.

3. Annotate the following passage, and state its leading idea, as also its bearing on the play:— 15

How am I glutt'd with conceit of this!
Shall I make spirits fetch me what I please.
Resolve me of all ambiguities,
Perform what desperate enterprise I will?
I'll have them fly to India for gold,
Ransack the Ocean for orient pearl,
And search all corners of the new-found world
For pleasant fruits and princely delicacies:
I'll have them read me strange philosophy,
And tell the secrets of all foreign kings...
I'll have them fill the public schools with silk
Wherewith the students shall be bravely clad;
I'll levy soldiers with the coin they bring
And chase the Prince of Parma from our land
And reign sole king of all our provinces.

Either,

4. Hazlitt says: 'The character of Faustus may be considered as a personification of the pride of will and eagerness of curiosity sublimed beyond the reach of fear and remorse.' Discuss this statement by references to the play. 10

Or,

Write a note on Marlowe as a dramatist. Name his chief plays and mention any special influence they have had on literature.

5. Comment on the following passages:— 9

- (a) Fairer than Phoebe's sapphire-region'd star,
Or Vesper, amorous glow-worm of the sky.
- (b) Nor suffer thy pale forehead to be kissed
By nightshade, ruby grape of Proserpine.
- (c) For I would not be dieted with praise,
A pet-lamb in a sentimental farce!

6. (a) What are the special characteristics of Keats's odes? How may they be classified? 8

Either,

- (b) Remark on the Greek element in the *Ode to Psyche*. 8

Or,

What points of contrast does the *Ode to Autumn* offer, when compared with the other odes of Keats?

7. Explain carefully the following passages:—

- (a) Stop and consider! life is but a day;
 A fragile dew-drop on its perilous way
 From a tree's summit; a poor Indian's sleep
 While his boat hastens to the monstrous steep
 Of Montmorenci. Why so sad a moan?
 Life is the rose's hope while yet unblown:
 The reading of an ever-changing tale;
 The light uplifting of a maiden's veil;
 A pigeon tumbling in clear summer air;
 A laughing school-boy, without grief or care,
 Riding the springy branches of an elm.
- (b) Far as the mariner on highest mast
 Can see all round upon the calmed vast,
 So wide was Neptune's hall: and as the blue
 Doth vault the waters, so the waters drew
 Their doming curtains high, magnificent,
 Aw'd from the throne aloof;—and when storm-rent
 Disclos'd the thunder gloomings in Jove's air;
 But sooth'd as now, flashed sudden everywhere,
 Noiseless, sub-marine cloudlets, glittering
 Death to a human eye: for there did spring
 From natural west, and east, and south, and north,
 A light as of four sunsets, blazing forth
 A gold-green zenith 'bove the Sea God's head.

ENGLISH.

FIFTH HONOURS PAPER.

Examiner—A. CAMERON, ESQ.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks.

GROUP A.

Answer any THREE questions.

1. Write a critical appreciation of Landor's dramatic power as seen in his grouping of characters and choice of situations. 15
2. "Dear Addison! deliberate, moral; sentimental, foaming over with truth and virtue, with tenderness and friendship." How far is this a correct characterisation of Addison? 15

Or,

Describe the character of Peter the Great as seen in the imaginary conversation between him and Alevis

3. Write a brief note, critical and explanatory, on what you consider to be Landor's ideal of womanhood as seen in his presentation of the character of Lady Jane Grey. 15

4. Expand with reference to the context *any four* of the following :— 15

- (a) A solitude is the audience-chamber of God.
- (b) I serve at a tavern where every hour is dinner-time, and pick a bone upon a silver dish.
- (c) Faith ! I am mortified : you the schoolman, I the schoolboy !
- (d) I am not dissatisfied, on the whole, with my *Mask of Comedy*, yet there the scholar in his gown stood in the poet's way.
- (e) We are a miscellaneous volume, the leaves well sewed together,—Roman, Norwegian, Dane, Saxon, chapter after chapter.

Or,

Annotate the following with reference to the context :—

- (a) Mere talents are dry leaves, tossed up and down by gusts of passion, and scattered and swept away, but Genius lies on the bosom of Memory, and Gratitude at her feet.
- (b) To the voice of compassion not a shell in all the ocean is attuned ; and no tear ever dropped upon Olympus.
- (c) He sang to me over the lyre the lives of Narcissus and Hyacinthus, brought back by the beautiful Hours, of silent unwearied feet, regular as the stars in their courses.

GROUP B.

Answer any TWO questions.

5. Give the substance of the letter which Dr. Johnson wrote to the Earl of Chesterfield on the eve of the publication of his *Dictionary*. Elucidate the significance of the letter in the history of English Literature. 15

6. What do you gather from your text regarding— 15

- (a) the reception of *Gulliver's Travels* by the contemporaries of *Gulliver* ;
- (b) the views of Addison about Pope's plan of a translation of Homer ; and
- (c) the views of Lady Mary Montague on the subject of the education of her granddaughter ?

7. Explain the following with reference to the context :— 15

- (a) Books are the shrines where the saint is, or is believed to be ; and you have built an Ark to save learning from deluge.
- (b) Our passions, our interests, flow in upon us and unphilosophise us into mere mortals.
- (c) The world is made for Caesar.

GROUP C.

8. Give the substance of the following passages, bringing out in each case what you consider to be the leading idea of the passages :— 25

- (a) Man is not the creature of circumstances. Circumstances are the creatures of men. We are free agents, and man is more powerful than matter. Truth may be distorted, may be stifled, be suppressed. The invention of cunning deceits may, and in most instances does, prevent man from exercising his own powers. They have made him responsible to a realm of shadows, and a suitor in a court of shades. He is ever dreading authority which does not exist, and fearing the occurrence of penalties which there are none to enforce. But the mind that dares to extricate itself from these

vulgar prejudices, that proves its loyalty to its Creator by devoting all its adoration to His glory; such a spirit as this becomes a master mind, and that master mind will invariably find that circumstances are its slaves.

(b) There is an old saying that to live is to outlive. This is not to tell us that "from the tablet should be abolished quite the cheerful past." It means no more than that Ideals have their hours and fade. The oracle of to-day drops from his tripod on the morrow. In common lives of human thought and act, as in the business of the elements, winds shift, tides ebb and flow, the boat swings. Only let the anchor hold. We should not cast our horoscopes too narrowly. One's first associations must have been ill chosen if fidelity to their essence and foundations comes to be over-clouded by the falling mists of afternoon.

ENGLISH.

SIXTH HONOURS PAPER.

Examiner—PRAPHULLACHANDRA GHOSH, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

A. PHILOLOGY.

Answer any THREE of the following questions.

The questions are of equal numerical value.

1. Classify the Aryan languages, showing their relations to one another, and especially the position and connexions of English in the Aryan family.

2. Distinguish the different forms of writing that have been practised, and sketch briefly the origin of alphabetic writing, and the history of alphabetic writing among English-speaking people.

3. Distinguish with approximate dates what you consider to be the principal periods or stages in the history of the English language, stating the chief distinguishing peculiarities of each period.

4. The Latin element in the English language: explain how and when it was introduced, and discuss the question whether and how its introduction has been beneficial to the language.

5. Write notes on any *five* of the following words and phrases:—riches; island; enormous; reliable; they, their, and them; it is him; 'would he were fatter'; better than me; wo worth they day; 'heat me these irons red hot.'

6. Exhibit the different applications of the formative *-ing* with their meanings. Give also the meanings, with examples, of *-dom*, *-hood*, and *-ship*.

7. Sketch the history and uses of *shall*, *will*, and *may*, and explain the precise meanings of these words in the following sentence: He that *will* not when he *may*, he *shall* not when he *would*.

B. HISTORY OF LITERATURE.

Answer any THREE of the following questions.

The questions are of equal numerical value.

8. Explain the nature of Alliterative verse. At what period was it used? Mention three important poems in this form. When was Rhyme adopted? Mention three of the earliest rhyming poets. When was blank verse introduced? and for what kinds of poetical composition has it been adopted? Mention two of the longest poems in blank verse.

9. Give an account of the life of Spenser, and of the subject, versification, plan, and style of his principal work. Mention some poems written in imitation of Spenser, with authors and approximate dates.

10. Give an account of the principal works of any *five* of the following authors, indicating their importance in the history of literature:—Geoffrey of Monmouth; William Langland; Thomas Malory; Thomas Sackville; Christopher Marlowe; Francis Bacon; and Thomas Browne.

11. Give an account of any *five* of the following works, sketching subject-matter and style, and stating author and period, and, in the case of poems, their versification:—*Areopagitica*; *Hudibras*; *A Tale of a Tub*; *The Castle of Indolence*; *Biographia Literaria*; *Imaginary Conversations*; *Wesward Ho*; *Past and Present*; *The Stones of Venice*; *Bothwell*.

12. Explain the meanings and the ordinary metrical structure of 'Pastoral,' 'Elegy,' 'Ode,' 'Sonnet' and 'Ballad.' Mention the principal writers of each kind, and some noted examples of each.

13. Name and characterize *three* great novelists of the nineteenth century, and give as full an account as you can of any *one* novel by each of them.

14. The 'Augustan' or 'Classical' school of the eighteenth century and the Romantic School of the early nineteenth century: give their distinguishing characteristics; and mention *three* representative writers of each school, and give some account of *one* of the principal works of each.

ENGLISH.

DR. H. STEPHEN, M.A., D.D., *Chairman.*

FIRST PASS PAPER.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners— $\left\{ \begin{array}{l} \text{MR. J. W. HOLME, M.A.} \\ \text{BABU PARESNATH SEN, B.A.} \\ \text{BABU BIJAYGOPAL MUKHERJEE, M.A.} \\ \text{BABU SRIKUMAR BANERJEE, M.A.} \end{array} \right.$

Answer Questions 1 and 2 and two others.

1. Summarize the estimate of her husband's character given by Lady Macbeth on reading his letter. How far is the estimate justified by his conduct in the course of the play? 10

2. Explain with reference to the context:— 20

- (a) Was the hope drunk
Wherein you dressed yourself? hath it slept since?
And wakes it now to look so green and pale
At what it did so freely? From this time
Such I account thy love.
- (b) If much you note him,
You shall offend him, and extend his passion:
Feed, and regard him not. Are you a man?
- (c) Bleed, bleed, poor country!
Great tyranny, lay thou thy basis sure,
For goodness dare not check thee! wear thou thy wrongs,
The title is afear'd.
- (d) Why should a man, whose blood is warm within,
Sit like his grandsire cut in alabaster?
- (e) It were too gross
To rib her cerecloth in the obscure grave.
- (f) There's not the smallest orb which thou behold'st
But in his motion like an angel sings,
Still quiring to the young-eyed cherubins.

3. Give a short account of the sleep-walking scene, mentioning the previous incidents in the play to which Lady Macbeth refers. 15

Either,

4. How does Bassanio describe the character of Gratiano? Justify his description from Gratiano's behaviour in the play. 10

Or,

Give the substance of Portia's descriptions of *any two* of her suitors, pointing out instances of her wit.

5. Give instances from *The Merchant of Venice* that point to Shakespeare's knowledge of classical literature and tradition. 10

SECOND HALF.

Examiners—{ RAI LALITMOHAN CHATTERJEE, BAHADUR, M.A.
 BABU SATYENDRANATH BHADRA, M.A.
 BABU SATISCHANDRA DE, M.A.
 BABU NRITYALAL MUKHERJEE, M.A.

Answer Questions 1 and 6 and two others.

1. Write explanatory notes on the following passages, referring 14
 each to its context:—

- (a) Yet not the more
 Cease I to wander where the Muses haunt
 Clear spring or shady grove, or sunny hill,
 Smit with the love of sacred song.
- (b) In vain, though by their powerful art they bind
 Volatile Hermes, and call up unbound
 In various shapes old Proteus from the sea,
 Drained through a limbeck to his native form.
- (c) Not that fair field
 Of Enna, where Proserpin gathering flowers,
 Herself a fairer flower; by gloomy Dis
 Was gathered.
- (d) Close the serpent sly,
 Insinuating, wove with Gordian twine
 His braided train, and of his fatal guile
 Gave proof unheeded. *Either,*

2. Give the substance of Satan's reflections at the first sight of 12
 Adam and Eve.

Or,

Summarize Satan's speech to Uriel.

3. Discuss Milton's use of similes. Illustrate your answer by 12
 quoting or referring to *three* examples.

4. Express in your own words the thought contained in the follow- 12
 ing lines:

There is a very life in our despair,
 Vitality of poison,—a quick root.
 Which feeds these deadly branches ; for it were
 As nothing did we die, but life will suit
 Itself to Sorrow's most detested fruit,
 Like to the apples on the Dead Sea's shore,
 All ashes to the taste: Did man compute
 Existence by enjoyment, and count o'er
 Such hours 'gainst years of life,—say would he name three-
 score ?

5. Give generally in your own words, but adopting any note- 12
 worthy expressions from Byron, *either* his description of the scenes
 preceding the Battle of Waterloo, *or* his estimate of the character
 of Napoleon.

6. Explain fully the allusions:—

12

- (a) The Suabian sued, and now the Austrian reigns—
 An Emperor tramples where an Emperor knelt.

- (b) When Athens' armies fell at Syracuse,
And fetter'd thousands bore the yoke of war,
Redemption rose up in the Attic Muse,
Her voice their only ransom from afar.
- (c) Peace to Torquato's injured shade ! 'twas his
In life and death to be the mark where Wrong
Aim'd with her poison'd arrows—but to miss.
7. (a) What does Byron say in *Childe Harold* of Dante, Sylla, the Coliseum ? 12
- (b) What reasons does he give for his early love of Venice ?

ENGLISH.

SECOND PASS PAPER.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners— $\left\{ \begin{array}{l} \text{BABU RAJANIKANTA GUHA, M.A.} \\ \text{BABU SATISCHANDRA MUKHERJEE, M.A.} \\ \text{BABU HEMCHANDRA SARKAR, M.A.} \\ \text{BABU ABINASCHANDRA BOSE, M.A.} \end{array} \right.$

Either,

1. Write a short note on the style used by Shakespeare in his Romances. 10

Or,

Describe after Raleigh the character of Shakespeare's women. What difference do you find between them and Shakespeare's men ?

2. Show the connexion of *any two* of the following observations with Raleigh's argument, and illustrate them by examples :— 16

(a) All poetry, all art, observes certain conventions of form. These poems are sonnets. There is nothing else conventional about them, except their critics.

(b) Shakespeare moves in a larger scheme of things, where the sun rises on the evil and on the good.

(c) It is not true to say that in the greater tragedies of Shakespeare character is destiny.

3. Elucidate *any three* of the following :— 18

(a) Shakespeare's poetry has been cut into minute indigestible fragments, and used like wedding-cake, not to eat, but to dream upon.

(b) There are many footprints around the cave of this mystery, none of them pointing in the outward direction.

(c) But for the accident of genius, tragedy in England might have continued as an imitative exercise, practised chiefly by argumentative philosophers.

(d) Falstaff bestrides the play like a Colossus, and the young gallants walk under his huge legs and peep about to find themselves honourable graves.

(e) Othello has lived all his life by faith, not by sight.

(f) He who runs may read, when he who stands and ponders is strangled by the grammatical intricacies.

SECOND HALF.

Examiners— $\left\{ \begin{array}{l} \text{BABU JAYGOPAL BANERJEE, M.A.} \\ \text{BABU BHUSHANCHANDRA DAS, M.A.} \\ \text{BABU SUSILKUMAR DE, M.A.} \\ \text{BABU SUNITIKUMAR CHATTERJEE, M.A.} \end{array} \right.$

Either,

4. Write a short note on Scott as a master of the picturesque, illustrating it by references to your text. 13

Or,

Characterize after Scott the merits and defects of the Highlanders and the Lowlanders as soldiers. To what extent did these affect the success of Montrose and Argyle?

5. Explain *any two* of the following:— 12

(a) Were it in my option, I could no more consent to the halving of that dollar, than the woman in the Judgment of Solomon to the disseverment of the child of her bowels.

(b) One of the Campbells replied, 'It is a far cry to Lochow.'

(c) I have sometimes thought of taking a turn either with Bethlem Gabor, or with the Janizaries.

(d) I am just now like the half-pike, or spontoon of Achilles, one end of which could wound, and the other cure.

Either,

6. Discuss and explain Southey's remark, 'Cowper is the best of English letter-writers.' 13

Or,

What is Keats's conception of the poetic character? What do you think of Charlotte Brontë as a critic?

7. Explain *any two* of the following:— 12

(a) A man will make more by the figures of arithmetic than the figures of rhetoric, unless he can get into the trade wind, and then he may sail over Pactolean sands.

(b) When you have carried your point of discarding the ode, and my point of getting the sack, you will be exactly in the situation of Davy in the farce, who stipulates for more wages, less work, and the key of the ale-cellar.

(c) If there were such darling things as old Chaucer sings, I would up behind you on the horse of brass, and fisk off for Prester John's country.

(d) I will never shrink; and if you do, I can always answer you in the question of Guatimozin to his minister—each being on his own coals.

ENGLISH.

THIRD PASS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners— { DR. JAJNESWAR GHOSH, M.A., PH.D.
R. C. GOFFIN, ESQ., M.A.
J. S. ZEMIN, ESQ., B.A.
P. C. RAY, ESQ.

1. Express in your own words the underlying thought and purpose of the following passage :— 25

The old Adam within us is the Adam of the pre-social stages of human history—the impulses of barbarism, the unrectified egotistic emotions of the dweller in cave and wilderness, which will from day to day burst loose and declare themselves, despite the long discipline to which mankind has been subjected through centuries of progressing civilization. Every time we give way to such impulses the old barbarian rises within us, and temporarily reasserts his power. Scratch the Russian, and you will find the Tartar just beneath—so runs the proverb; and in the great mass of men the morality of civilization is as yet hardly more than skin deep. As with the ship in Ibsen's grim and terrible poem, our modern society carries with it a corpse in the cargo—unbridled elemental passions, the brute instincts, the fierce anti-social tendencies transmitted to us by our far-off ancestors from the days before society and even humanity began.

What new significance is in this way given to the oft-repeated phrase which describes the criminal classes as the failures of civilization ! They are the representatives of the savage left over in the midst of our more developed life, guided by the savage's predatory instincts, living in a state of natural enmity with those about them, preying upon their fellows, to whom they offer nothing in return, and thus remaining un-integrated into the great organization of mutual-dependent parts which constitutes society. The moral progress of man, as John Fiske epigrammatically put it, is the gradual process of 'throwing off the brute inheritance.' The law of morality thus becomes more emphatically than ever the law of the higher life ; sin is degeneration, atavism, reversion to the pre-social or animal type ; and the ethical ideal of evolution, in Tennyson's language, is to—

Move upward, working out the beast,
And let the ape and tiger die.

2. Write in plain prose the story of the destruction of Sennacherib on the basis of the following poem :— 25

The Assyrian came down like the wolf on the fold,
And his cohorts were gleaming in purple and gold,

And the sheen of their spears was like stars on the sea,
When the blue wave rolls nightly on deep Galilee.

Like the leaves of the forest when summer is green,
That host with their banners at sunset were seen ;
Like the leaves of the forest when autumn hath blown.
That host on the morrow lay wither'd and strown.

For the Angel of death spread his wings on the blast,
And breathed in the face of the foe as he pass'd ;
And the eyes of the sleepers wax'd deadly and chill,
And their hearts but once heaved, and for ever grew still.

And there lay the steed with his nostril all wide,
But through it there roll'd not the breath of his pride :
And the foam of his gasping lay white on the turf,
And cold as the spray of the rock-beating surf.

And there lay the rider, distorted and pale,
With the dew on his brow, and the rust on his mail ;
And the tents were all silent, the banners alone,
The lances unlifted, the trumpet unblown.

And the widows of Ashur are loud in their wail,
And the idols are broke in the temple of Baal,
And the might of the Gentile, unsmit by the sword,
Hath melted like snow in the glance of the Lord.

SECOND HALF.

Examiners— { A. C. UNDERWOOD, ESQ.
A. CAMERON, ESQ.
J. DRAKE, ESQ.
K. L. NAG, ESQ.

Write an Essay on *one* of the following subjects :—

50

- (a) The proper place and limits of Patriotism.
- (b) The chief contributions of Great Britain to Indian progress.
- (c) The dominant needs of modern India.
- (d) The value of Philosophy as a means of mental culture.
- (e) The virtue of open-mindedness.
- (f) The character and significance of recent developments in Bengali literature.

BENGALI COMPOSITION.

Paper-setters—{ HON. JUSTICE SIR ASUTOSH MUKHERJEE,
Kt., C.S.I., M.A., D.L.
RAI SAHEB DINESCHANDRA SEN, B.A.
BABU AKSHAYCHANDRA SARKAR, B.L.

Head-Examiner—MAHAMAHOPADHYAYA HARAPRASAD SASTRI,
M.A., C.I.E.

Examiners—{ RAI SAHEB ISHANCHANDRA GHOSH, M.A.
BABU JOGINDRANATH BOSE, B.A.
BABU HARENDRALAL RAY, B.L.
BABU PURNACHANDRA DE, B.A.
BABU GOBINDANATH GUHA, M.A.
PRABHATKUMAR MUKHERJEE, ESQ., B.A., *Bar.-at-Law*.
BABU SASADHAR RAY, M.A., B.L.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Translate *any one* of the following passages into Bengali:— 20

(a) I thank you warmly on behalf of the Queen-Empress and myself for the assurance of loyalty and devotion on the part of the Corporation and citizens of the City of Calcutta to which your address gives expression. We are deeply touched by your kindly reference to my beloved father's stay in your city, and by your affectionate allusion to our own visit here six years ago. We can never forget the cordial welcome given to us on that occasion. It is a source of great pleasure for us to revisit Calcutta, and to see for ourselves evidence of your progress and prosperity.

(b) I know that you cherish ambitions that India will one day become a great manufacturing as well as agricultural country. I have watched with keen interest the progress of your business enterprises, and I trust that the success which has attended your commercial energy will attract more and more the youth of this country to regard commerce as a distinguished and honourable profession. It shall ever be our earnest endeavour to promote the welfare of our Indian Empire, and we fervently hope that the years as they pass will ever strengthen the feeling of warm attachment that exists between my house and my Indian people.

2. Give the gist of the two chapters of *Sri Kantha* headed চিত্রদর্শন and বিমর্জন। 6

3. Reproduce in your own words that episode from the *Kapalakundala* which has appeared most interesting to you. 9

4. Give a sketch of Vidyasagar as he was in his family, with special reference to his conduct towards his parents. 9

5. Which of the two characters, Mati Bibi and Kapalakundala, as depicted by Bankim Chandra, do you like most? Give your 9

6. Rewrite the following in chaste and elegant Bengali :—

10

সেই মাতাপিতা, যাঁহারা হচ্ছেন তোমার গুরুজন, পালন করে-
ছিলেন যাঁরা তোমাকে কত কষ্ট স্বীকার করিয়া, নিরবধি কছেন
যাঁহারা তোমার ইষ্ট সাধনা, যাঁহাদের ছাড়া তোমার গতি ছিল না
এক কালে, তুমি যখন হাঁটিতে পারিতে না তোমার তখন কোলে
করিয়া বেড়াইতেন যাঁহারা, সেই মাতাপিতার প্রতি তোমার এই কৃত
ব্যবহার কি সঙ্গত ?

7. Correct all errors in the following extract :—

10

আমার সাবকাশ না থাকাতে আমি তাহার কাতর সংবাদ
শুনিয়াও দেখিয়া যাইতে পারি নাই, এজ্জন্ত সে অসন্তোষ হইয়াছে,
ইহা আমার দুঃখদৃষ্ট। তাহার চিত্তমুগ্ধ যে সন্দেহের বীজ উগ্ধ
হইয়াছে তাহা ভবিষ্যতে তাহার সকল সুখ গ্রাস করিবে। এই শয্য
শ্যামলা ভারতবর্ষে জন্ম গ্রহণ করিয়াও কত বীমক্তি হুর্ভিক্যরূপ সমুদ্রের
গ্রাসে পড়িয়া দগ্ধ হইতেছে।

Either,

8. Write a folk-tale that you may have heard.

24

Or,

An essay on any of the following subjects :—

24

(a) The profession you intend to follow on entering life.

(b) Moral courage.

(c) An Indian religious reformer.

HINDI COMPOSITION.

Paper-setters—{ BARU PURANCHAND NAHAR.
LALA SITARAM, B.A.

Examiner—LALA SITARAM, B.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Translate any two of the following passages into Hindi :—

40

(a) There is, perhaps, some danger that the popular awakening
which has taken place in recent times to the importance of educa-
tional questions may lead to the injudicious application of educa-
tional processes. In the keen struggle for existence that goes on in
these days it has become apparent that individuals and states will
prove prosperous in proportion as they are instructed, and so we
have passed from *laissez faire* to compulsion, and the boon of education

has been conferred on our lower and ignorant masses. But the education of the masses, in the thorough and liberal spirit in which it is now conducted, entails upon the middle classes the necessity of a higher and better training than they have been heretofore accustomed to, if they would maintain their position; and the advance of the middle classes in sound learning imposes on the upper classes the duty of the highest possible cultivation, if they would still lead and rule. There is a general upheaval, therefore, in educational matters—a straining forward, which may end in misfortune if reasonable restraints be not imposed, for it is very certain that immense numbers of the children now taught in schools, and pushed on with a zeal that is assiduously stimulated in every possible way, are ill prepared for mental exertion or brain work. Some are constitutionally delicate, some are imperfectly developed, some are badly nourished, and many lack the inherited aptitude for study which deprives it in a great measure of its irksomeness and galling qualities.

(b) Evils have grown in civilized communities in the nineteenth century, notwithstanding all the progress we have made in art and science and the rational reform of our personal and social life. Civilization has gained infinitely in value by the change we have made in our conceptions of time and space in this age of steam and electricity. We can make our domestic and public life much pleasanter, and avail ourselves of a far greater number of luxuries than was possible to our grandfathers a hundred years ago. But all this has caused a much greater expenditure of nerve energy. The brain has to bear a much greater strain, and is worn out earlier, the body is more stimulated and overworked than it was a hundred years ago. Many diseases of modern civilization are making appalling progress: the various diseases of the nerves carry off more victims every year. Our asylums grow bigger and more numerous every year, and we have sanatoria on every side in which the baited victim of modern civilization seeks refuge from his evils. Some of these evils are quite incurable, and the sufferers have to meet a certain death in terrible pain. Many of these poor creatures look forward to their redemption from evil and the end of their miserable lives. The important question arises whether, as compassionate men, we should be justified in carrying out their wish and ending their sufferings by a painless death.

(c) It is most right that in the great republic of letters there should be freedom of intercourse and a spirit of equality. Every reader who holds a book in his hand is free of the inmost minds of men past and present; their lives both within and without the pale of their uttered thoughts are unveiled to him; he needs no introduction to the greatest; he stands on no ceremony with them; he may, if he be so minded, scribble 'doggerel' on his Shelley, or he may kick Lord Byron, if he please, into a corner. He hears Burke perorate, and Johnson dogmatize, and Scott tell his border tales, and Wordsworth muse on the hillside without the leave of any man, or the payment of any toll. In the republic of men there are no privileged orders or places reserved. Every man who has written a book, even the diligent Mr. Whitaker, is in one sense an author: 'a book's a book although there is nothing in it'; and every man who can decipher a penny journal is in one sense a reader. And your 'general reader,' like the gravedigger in Hamlet, is a hail-fellow with all the mighty dead; he pats the skull of the jester; batters the cheek of lord, lady, or courtier; and uses 'imperious Caesar' to teach boys Latin declensions.

2. Write an essay in Hindi on *one* of the following subjects :— 40

(a) A great poem is in fact an image of national feeling—the Ramayana of Tulsidas.

(b) Study of poetry—what constitutes good poetry—the chief end of poetry—pleasure—instruction.

(c) Is compulsory free education possible or desirable in India under the present circumstances?

(d) The character of Rama—the model son, brother, husband, and king, the Arthur of Indian chivalry.

3. Rewrite the following, filling up the ellipses :—

20

हमारे कार्यों - परिणाम - दूर - पहुँचता है। इस - जो -
हम करें उसे - विचार कर करें। हमारे - हम - तक - जाते तो
इतनी - होने - सम्भावना न थी। - हमारी कार्यावली - सारी
समाज - पढ़ता है। इस लिये हमारा उत्तर - बहुत - है।
- हम कोई अशान्ति - काम - बैठते हैं - समस्त - में अशान्ति
को - पैदा हो जाते हैं। अतः हमें सदा इस - में संलग्न -
चाहिये कि हमारे - कार्य से किसी अणमात्र भी - न हटते ॥

ORIYA COMPOSITION.

Paper-setters— { HON. MR. MADHUSUDAN DAS. C.I.E., M.A.
R.L.
BABU MADHUSUDAN DAS. M.A.

Examiner—BABU MADHUSUDAN DAS. B.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate *any two* of the following passages into Oriya :—

(a) With all their enormous differences in natural endowment, 15
men agree in one thing, and that is their innate desire to enjoy the pleasures and escape the pains of life; and, in short, to do nothing but that which it pleases them to do, without the least reference to the welfare of the society into which they are born. That is their inheritance (the reality at the bottom of their original sin) from the long series of ancestors, human, semi-human, and brutal, in whom the strength of this innate tendency to self-assertion was the condition of victory in the struggle for existence.

(b) The tumults are great in all parts of England on account of 15
the excessive price of corn and bread, which has risen since the harvest. I attribute it more to the abundant increase of paper, and the non-circulation of cash, than to any other cause. People in trade can push the paper off as fast as they receive it, as they did by con

tinental money in America ; but as farmers have not this opportunity they endeavour to secure themselves by going considerably in advance. Now I have given you all the great articles of intelligence, for I trouble not myself with little ones.

(c) I fully admit that the mischief which a person does to himself may seriously affect, both through their sympathies and their interests, those nearly connected with him, and, in a minor degree, society at large. When, by conduct of this sort, a person is led to violate a distinct assignable obligation to any other person or persons, the case is taken out of the self-regarding class, and becomes amenable to moral disapprobation in the proper sense of the term. Whenever a person disables himself by conduct purely self-regarding he is guilty of a social offence, if he fail thereby to perform a duty incumbent on him to the public. 15

(d) The isolation of the Khasi race, in the midst of a great encircling population, all of whom belong to the Thibeto-Burman stock, and the remarkable features presented by their language and institutions, soon attracted the attention of the comparative philologists and ethnologists. An account of their researches will be found in Dr. Grierson's *Linguistic Survey of India*. Here it will be sufficient to mention the important work of Mrs. Logan who demonstrated the relationship which exists between the Khasis and certain peoples of farther India; the chief representatives of whom are the Mōns of Pegu and the majority of the inhabitants of Annam. But, however, the exact nature of the relations between them is as yet one of the unsolved problems of ethnology. 15

2. Write an essay on *any one* of the subjects named below :— 40

- Miracles and natural law.
- The value of life.
- Liberty of thought and action.
- Temple building and sculpture in ancient Orissa.
- Doing good to others is indirectly doing good to one's own self.

3. (a) Explain fully in idiomatic Oriya the following extract :— 10

ପୁତ ବୈତରଣୀସ୍ତେ ତପ୍ରଭବ ଗୋନାସା।

ରକ୍ଷି ସଭା ମଧ୍ୟେ ଯହିଁ ଭଗବ ମୁଖରୁ

ହରେ ପୁତର ପୁଣ୍ୟଶ୍ଳୋକକଥାମୁତ

(b) Expound and explain the *samāsas* in the words underlined. 10

Correct all kinds of errors in the following passage :— 10

ଏବେକୁ ଓପରୁ ଭର ତମ୍ଭୀ ଆସିଛି । ଆଗେ ସାହାବମାନେ ନାଆଁକୁ ଗପ୍ତ କରିବାକୁ ଆସି ଯୋଡ଼ା ହୋପଟାର ବୁଲି ଯାଉଥିଲେ ଏବେ ହୋକୁମ ଆସିଛି ଯେ ସେମାନେ ଗାଏଁ ଗାଏଁ କୁଲି ଲୋକଙ୍କ ସଙ୍ଗେ ମିଳି ମିଶା କରି ତାଙ୍କମାନଙ୍କର ହାଲତଲଗ ସମସ୍ତ ଦେଖି ଯେପରି ସେମାନେ ଶୁଣୁରେ ରହିବେ ତହିଁର ବେକସୁ କରିବେ ।

କି ଗଣ୍ଡକ, କି ତାଲେବର, କି ପିଲ୍ଲ, କି ବୃତ୍ତ। ସଭିକ ସାଙ୍ଗେ
ସମ୍ମାନଭାବରେ ମିଶି କଥାକାରତା କରି ଘରକରଣ।ଠାରୁ ବେପାର-
ବାଣିଜି ଯାଏ ସବୁ ଗୁଞ୍ଜିଷ୍ଟ କରିବେ ।

URDU COMPOSITION.

Paper-setters— { DR. M. M. HUKK, PH.D.
 { MAULAVI MD. MUSTAPHA KHAN, M.A., B.L.

Examiner—DR. M. M. HUKK, PH.D.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Translate into Urdu *any two* of the following passages:—

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(a) Carlyle was in perpetual opposition to the main tendencies of his own age. He preached the benefits of benevolent despotism to a generation whose main political work was the development of democratic principles; and to an age of easy optimism, bred of unparalleled commercial activity, he proclaimed the doctrine that wealth is not prosperity, and only brings new dangers instead of removing the old. This perpetual opposition, which made him such a healthy stimulus to his first readers, however, is apt to militate against him with their successors. The defects of his method—his habitual exaggeration and the great preponderance of destructive criticism in his works—rather repel readers of to-day. But his outstanding principles, his doctrine of the sacredness of work and the sacredness of truth, have already passed into the current thought of our time. As a literary artist, as a painter of individuals and individual scenes in biography and history, he is unrivalled among the prose writers of the world. The style of his earliest works is little different from that of ordinary compositions of the preceding generation; but as his genius developed he forged for himself a new style, unfettered by any of the ordinary conventions, and for the most part, running counter to them.

(b) The classical period of Arabic literature is pre-Islamic, and consists throughout of poems which lived in the mouths of the people. Beginning with short ditties and epigrams of impromptu character, it soon developed more artistic forms, and one hundred years before Muhammad the Prophet we encounter a fine array of stately metres. These poems are called *Kasidahs*, each line consisting of two half-verses, with the rhyme repeated in the second half of each. Although the productions of this period were in later centuries collected, annotated, and edited by men who loved their native tongue, the texts of many of the poems, as handed down to us, are anything but in a sound condition. The same men also discoursed on the lives of the poets, and arranged their works in groups according to their pre-eminence. One of these are the seven famous *Moallakat*

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('the suspended ones'), a name which gave rise to the legend that these poems having won the prize, were woven in gold brocade and suspended in or on the Kaaba. The first prose composition is the Kuran, and it marks the most important epoch in Arabic literature. The mere necessity of understanding the Kuran awakened linguistic studies, which were subsequently taken up for their own sake, and resulted in compendia of grammar astounding in their hair-splitting elaboration. Dictionaries were compiled, which in our time are indispensable to the foreign student of Arabic. There is hardly any branch of human thought to which the Arabs did not devote their pens.

(c) Cavalry is essentially an arm of offence, and its distinctive characteristic is the action of man and horse combined. This enables it to cover long distances in short periods of time, and to combine attack with surprise to the best advantage. The fact that it is now armed with a long-range rifle has yet further increased its power of resistance and extended its sphere of action. These qualities are particularly desirable in a period when the great bulk of a modern army renders it almost impossible to extricate it from a deployment to which it has been once committed. They enable the cavalry to be pushed far further to the front than has been the custom in recent years, and, in short, to revert to the practice by which Napoleon won so many of his victories. His cavalry, it will be remembered, was often more than 100 miles in front of his army, and was able not only to discover the dispositions of the enemy but to enable its own main body to complete its deployment in concealment and security. These are the main duties of the cavalry to-day, and it is therefore distributed in the *Strategic, Protective and Divisional Cavalry*.

2. Elucidate in simple Urdu any three of the following lines :

(a) جہانکے تہ وہ مجھے جس روز دیوار سے

وے قسمت ہو اسی روز میں گھر زنبور کا

(b) کیا پوچھتا ہے تو عمل بغض و محبت

چلتا ہوا تعویذ، سمجھہ نقش درم کو

(c) رخصت اے زندان جنون زنجیر در کھڑکے ہے

مژدہ خار دشت پھر تلوا مرا کھجلاے ہے

(d) ذکر بتان سے پہلی سی نفرت نہیں رہی

کچھ اب تو کفر مومن دین دار کم ہوا

(e) کہتے ہونہ دینگے دل اگر پیرا پایا

دل کہاں کہ گم کیجے ہم نے مدعا پایا

3. Write sentences introducing *any four* of the following :—

ہت دھرمی - ادھیر بن - گرو گہنٹال - موئی مئی
چکنی چپڑی - بہر مار - بہول بہلیان *

4. Explain the terms ریختہ and اردو. 3

5. Write an essay in Urdu on *any one* of the following subjects :— 40

(a) Abuz-Zafar Muhammad Bahadur Shah as (i) poet, (ii) patron of poets.

(b) The charms of the spring season.

(c) Distinguishing features with quotations of the *rekhta* compositions of (i) Zauk and (ii) Ghalib, referring to the friendly rivalry of the two men.

(d) The choice of a profession.

ASSAMESE COMPOSITION.

Paper-sellers— { SRIJUT HEMCHANDRA GOSWAMI, B.A.
SRIJUT PADMANATH BARUYA, B.A.

Examiner—BABU NABINCHANDRA BARDOLAI, B.L.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into Assamese *any two* of the following passages :— 40

(a) Now was the middle of night, when over half the world nature seems dead, and wicked dreams abuse men's minds asleep, and none but the wolf and the murderer is abroad. This was the time when Lady Macbeth waked to plot the murder of the King. She would not have undertaken a deed so abhorrent to her sex, but that she feared her husband's nature, that it was too full of the milk of human kindness to do a contrived murder. She knew him to be ambitious, but withal to be scrupulous, and not yet prepared for that height of crime which commonly in the end accompanies inordinate ambition. She had won him to consent to the murder, but she doubted his resolution; and she feared that the natural tenderness of his disposition (more humane than her own) would come between and defeat the purpose.

(b) Boys of molten gold stood each on a polished altar, and held torches in their hands, to give light all night to the guests. And round the house sat fifty maid-servants, some grinding the meal in the mill, some turning the spindle, some weaving at the loom, while their hands twinkled as they passed the shuttle, like quivering aspen leaves. And outside before the palace a great garden was walled round, filled full of stately fruit trees, gray olives and sweet figs and pomegranates, pears and apples, which bore the whole year round. For the rich south-west wind fed them, till pear grew ripe pear, fig on fig, and grape on grape, all the winter and the spring.

(c) Here were a hundred rose-bushes, there many acres covered with the delicious jessamine, while yonder were extensive plantations of all sorts of flowers. As all the plants were begemmed with flowers and as the flowers were in full bloom, the air was loaded with rich perfume. It was a wilderness of sweets. Through this paradise of perfumery they proceeded towards the house, which was surrounded by banks of lofty trees. They stood at the door of the house. It was a fairy palace. The walls were of burnished gold, and here and there shone diamonds of dazzling hue which were stuck into the walls. They went inside, which was richly furnished. They went from room to room, but they did not see any one.

Either,

2. (a) Render the following into simple and chaste modern forms:— 10

কালিন্দী জলন্ত কালীৰ সৰ্পৰ মহা হৃদ আছিল। যাৰ জল বিয়ালিয়ে উতলি থাকে উপৰে যাইতেও পকি সব পড়ে। তাৰ বায়ু লাগিত্ত তীবৰ স্বাবৰ জ্বলম মৰে। হেন চণ্ডবেগ বিবৰীৰ্য্য কালীৰ দ্বিত নদী দেখি তাৰ নিখুৱাৰ্থে কটিত বজ্জ বান্ধি কদম্বত চড়ি বাহু তালি মাৰি হৃদত পৰিল। ভগৱন্তৰ পতন বেগে হৃদৰ জল উখলি উঠি চৌতিতি চচাৰিষ হাতড় বাহিল। আক অনন্তবল ভগৱন্তত চিত্ত নেদেখিবা। পাচে বাহক আকালি হৃদত বিহাৰ কৰিতে জলৰ শব্দ শুনি আপুন গৃহৰ পৰা ভয় দেখি তাক নসহি সৰ্প খেদি আসিল। শ্যাম স্নানৰ গীত বসন স্ত্ৰীবৎসলাঞ্জন হাস্যে স্নানৰ মুখ পদ্ম সম চৰণ দেখি কোধে মৰ্ম্ম স্থানত দংশি দেহে সৰু শৰীৰ ঘেড়িল। ভগৱন্তো সৰ্প দেহে আবৃত হয়, মনুষ্য চেষ্টা দেখায়া নিচেষ্ট বহিল।

Or,

- (b) Explain the following passages with reference to their contexts:—

(i) যি বলীয়ে ৰাজ্য দখল কৰে, তেওঁ প্ৰশংসনীয় নহয়, কিন্তু যি নিজৰ মনক দখল কৰিব পাৰে, তেওঁৱেই হে প্ৰশংসাৰ যোগ্য।

(ii) যিবিলাকে সকলো শিক্ষা নেপাইছিল আৰু মনৰ প্ৰবল পতিত কোনো বন্ধুৰ বাধা নেপাইছিল, প্ৰায় তেনেকুৱা মানুহহে কাটেকত আছিল।

(iii) সংসাৰৰ লহৰি, সংসাৰৰ স্ৰোত সংসাৰৰ গ্ৰাহ কুন্তীৰ আদি বৈবীকুল সকলোৱে মুখা পিনি মোহিনীৰূপ ধৰি থাকে। তাত শত্ৰুৱে মিত্ৰৰ ভাও দিয়ে, শত্ৰুৱে স্ত্ৰচলৰ ভাও দিয়ে, বিপদে সম্পদৰ ভাও দিয়ে।

Either,

3. (a) Can you justify the attack of Matali on the Bidushaka in the *Sakuntala*? Give your answer in Assamese. 5

Or,

- (b) Discuss the propriety of Kanva's advice to Sakuntala on the eve of her departure to her husband's house.

Either,

4. (a) Frame short sentences with *nouns* derived from দুই, হেজুলীয়া, কুলা, and with *adjectives* derived from সোণ, চকৰ, পানী। 5

Or,

- (b) Form simple sentences to illustrate the meanings of the words পাইক, পহলজি, পৰলা, পৰচেঙা, গাঁজিবাৰু।

Either,

5. (a) Narrate an Assamese folk-tale that you know in simple prose in Assamese. 40

Or,

- (b) Write an essay in Assamese on *any one* of the following subjects:—(i) Truthfulness; (ii) Mass Education; (iii) Knowledge is power; (iv) Pleasures of life.

BURMESE COMPOSITION.

Paper-setters—{ MAUNG WE LIN, ESQ.
MAUNG TIN, ESQ., M.A.

Examiner—MAUNG BA, ESQ., B.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate any *two* of the following:—

(a) Bird life, by reason of its predominating insect diet, is the most indispensable balancing force in nature. No one can tell what far-reaching results might follow the extermination of a single species of bird, for it is probable that the food preference of each species is so distinctive that no other could exactly fill its place. But for the trees the insects would perish, and but for the birds the trees would perish. A great increase of insects, and enormous damage by them, invariably follows wholesale destruction of wild bird life. In New Zealand, owing to the slaughter of birds, one has seen countless billions of caterpillars move in a solid mass across cultivated land, devouring every green thing in their march. Even railway trains were stopped by the immensity of the number of these crawling atoms. 20

(b) Are we really in an age of advanced civilization? Are we better off than our fathers? In so far as our material prosperity is concerned, we may be said to be advanced. But are we not deteriorating in other respects? Are we grown wiser and stronger? Are we really improved physically, intellectually, and morally? Perhaps we do not see this. Truly, we cannot see this now. But let us wait a few more minutes and have another breathing space, for the accusations levelled at us have taken us aback like a sudden thunder bolt. Now to proceed. Are we as bold as our fathers, who stood, barefooted, face to face with their enemies? Have we not recourse to stratagems and cunning in order to overthrow our enemies? Why then our torpedoes and other secret instruments of war? Are we 20

really grown wiser and morally superior? How then these wars where innocent women and children are butchered for no fault of theirs? Are our wars a necessary evil? Do they not spring from mere avarice and blood-thirst? Are we physically stronger? Can we undertake to accomplish the deeds which our fathers did in the twinkling of an eye?

(c) The Princess became to the poor villagers the incarnation of power on earth. She would have been thought rich in any country; to their utter wretchedness her wealth was fabulous beyond the bounds of fairy tale. Most persons would have admitted that she was wonderfully practical and showed a great deal of common sense in what she did. She was endlessly charitable to women and children and old men, but to those who could work she was inexorable. She paid well, but she insisted that the work should be done honestly. Some of the younger ones murmured at her hardness when they had tried to deceive her. 'Would you take false money from me?' She asked. 'Why should I take false work from you? You have good work to sell, and I have good money to give you for it. I do not cheat you. Do not try to cheat me!' They laughed shamefacedly, and worked better the next time, for they were not without common sense either.

2. Turn into plain Burmese prose—

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တကာနှင့်ဆရာ၊ ရွာနှင့်ရပ်သား၊ သားနှင့်အဘ၊ ဖြစ်ကြသည်တကြောင်း၊ သဘောပြောင်း၍၊ ကောင်းရာကို ယှဉ်၊ မကောင်းရာကိုကြဉ်စိမ့်မည်၊ အစဉ်းရှုံးဦး၊ ပကတူးက၊ သွင်းဘူးသည့်နှလုံးဖြင့်၊ အဆုံးအဖြတ်၊ တရားနှင့်စေ့စပ်သော်၊ စိတ်မတတ်၍ကိုယ်ကြေသည်၊ မိတ်မစပ်၍ညှိလေသည်၊ ရည်ဆောင်ချက်စကား၊ သူဟောင်းထို့ထားသည်နှင့်၊ အလားတူမရှိအောင်၊ သတိကိုဆောက်တည်မှု၊ ဖြူစွာသဘော၊ သဒ္ဓါအားပြောသဖြင့်၊ ရောထိုသည့်ကုသိုလ်ကို၊ မရှုထိုအာသာနှင့်၊ နင်လာစမ်းအဝေး၊ ဖေးကိုသတ်မည်၊ လက်မှီကောင်းအရည်သို့၊ မကြည်အောင်ကန့်ကွက်၊ အလှူဘက်ကို၊ အမျက်မယှဉ်စေရာ။

3.—Write an essay on one of the following subjects:—

40

(a) Superstitions and their effect on social life.

(b) Public opinion—the various stages of its development—influence of leaders and its stability—proper use of leaders' influence and the disastrous consequences of its abuse.

(c) The evils of early marriage.

ENGLISH.

ALTERNATIVE PAPER.

Paper-setters—{ BABU HERAMBACHANDRA MAITRA, M.A.
J. W. HOLME, ESQ., M.A.

Examiner—BABU HERAMBACHANDRA MAITRA, M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Answer TWO questions only.

1. 'Every nation's vice, or virtue, was written in its art.' Express in your own words Ruskin's adaptation of this saying to modern conditions. 25
2. Describe briefly the three kinds of noble war, as conceived by Ruskin. 25
3. 'You may make of England itself the centre of the learning of the arts, of the courtesies and felicities of the world.' How, according to Ruskin, is all this to be accomplished? 25

SECOND HALF.

4. 'For the poet the Ideal World is not remote from the Actual, but under it and within it: nay, he is a poet, precisely because he can discern it there.' Elucidate the observation, and apply it to Burns. 12
5. 'We do not think that the blame of Burns's failure lies chiefly with the world.' Justify this view. 13
6. 'It was a hard trial. Scott met it proudly, bravely,—like a brave proud man of the world. Perhaps there had been a prouder way still.' Explain fully. 10
7. 'Among the great of all ages, one sees no likelihood of a place for Scott.' Discuss the verdict. 15

SANSKRIT.

Paper-setters---	HON. SIR ASUTOSH MUKHERJEE, KT., C.S.I.,
	M.A., D.L.
	RAI RAJENDRACHANDRA SASTRI, BAHADUR,
	M.A.
	MAHAMAHOPADHYAYA DR. SATISCHANDRA
	VIDYABHUSHAN, M.A., PH.D.
	BABU BRAJALAL CHAKRAVARTI, M.A., B.L.
	BABU SURENDRANATH MAJUMDAR, M.A.

FIRST HONOURS PAPER.

Examiner—MAHAMAHOPADHYAYA DR. SATISCHANDRA VIDYA
BHUSHAN, M.A., PH.D.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Give an outline of the duties of a pupil (श्रक्ष) towards his preceptor (गुरु) as laid down in the Manusmṛhitā. 8

2. (a) Explain three of the following terms :— 6

ब्राह्मं तीर्थम्, ब्रह्माङ्गलिः, ऋत्विक्, आचार्यः, and उपाध्यायः ।

(b) Give the substance of the following in Sanskrit :— 6

पञ्चानां त्रिषु वर्णेषु भूयांसि गुणवन्ति च ।

यत्र स्युः सोऽत्र मानार्हः बृद्धोऽपि दशमीं गतः ॥

3. Translate any two of the following verses into English :— 8

(a) उद्धवर्हात्मनश्चैव मनः सदसदात्मकम् ।

मनसश्चाप्यहङ्कारमभिमन्तारमीश्वरम् ॥

(b) वेदोऽखिलो धर्ममूलं स्मृतिशीले च तद्विदाम् ।

आचारश्चैव साधूनामात्मनस्तुष्टिरेव च ॥

(c) त्रिधियज्ञाज्जपयज्ञो विशिष्टो दशभिर्गुणैः ।

उपाङ्गः साङ्कृतगुणः साङ्ख्यो मानसः स्मृतः ॥

4. Translate the following into English :— 7

यस्मात् पूजितमन्नं सामर्थ्यं धीर्यञ्च ददाति, अपूजितं पुनरेतद्भु-
भयं नाश्नयति, तस्मात् सर्वदा अन्नं पूजयेदिति पूर्वैकवाक्यतापन्नमिदं

फलस्रवणं संध्यावन्धनाशौ सपातदुरितक्षयवन्नित्यम् । कामनाविषयस्ते
नापि नित्यश्रुतिरविहता । नित्यश्रुतिविरोधात् फलश्रवणं स्तुत्यर्थमिति
तु नेध्यातिथिगोविन्दराजो ॥

5. (a) Who were the Kirātas ? Where did they live ? 2

(b) Give a critical estimate of Bhāravi as a poet with illustra- 6
ti ns from the Kirātārjunīyam.

6. (a) Explain the following stanza in Sanskrit in the manner of 6
Mallinātha :—

सखीनिव प्रीतियुजोऽनुजीविनः

समानमानान् सुदृक्श्च बन्धुभिः ।

स सन्ततं दर्शयते गतस्त्रयः

कृताधिपत्यामिव साधु बन्धुताम् ॥

(b) Give the substance of the following stanza in English :— 4

गुणानुरक्तमनुरक्तसाधनः °.

कुलाभिमानो कुलजां नराधिपः ।

परैस्त्वन्नयः क इहापहारयेन्

मनोरमासात्मवधूमिव श्रियम् ॥

7. Translate two of the following stanzas into English :— 10

(a) पुरःसरा धामवतां यशोधनाः

सुदुःसहं प्राप्य निकारमौदृशम् ।

भवाद्दृशाश्चेदधिकुर्वते रतिं

निराश्रयादन्तहता मनस्विता ॥

(b) बलवानपि कोपजन्मनः

तमसो नाभिभवं सखि यः ।

क्षयपक्ष इवेन्दवोः कलाः

सकला हन्ति स शक्तिसम्पदः ॥

(c) अश्रुरप्युपहन्ति क्षिप्रहः

प्रभुमन्तः प्रकृतिप्रकोपजः

अखिलं हि हिनस्ति भूधरं

तस्यशास्त्रान्तर्निघर्षजोऽनलः ॥

In (a) derive सखः, सुदुःसहं, and भवाद्दृशाः. In (b) conjugate the 9
roots of सखि, हन्ति, and सम्पदः in लिट् and लृट् third person all

numbers. In (c) expound the *samāsas* in **स्यन्नाः प्रकृतिप्रकोपकः** and **नक्षत्राणां निर्वर्णः** .

8. Elucidate the following in English :—

3

**कृतमविष्कृतपौरुषैर्भुजैः—भुजैरिति गम्यमानसाधनक्रियापेक्षया
कारणत्वात् तृतीया । उक्तञ्च नाशोद्गोते “न केवलं श्रूयमाद्यैव क्रिया
निमित्तं कारकभावस्यापि तु गम्यमानापि” । इति ॥**

9. Translate the following passages into Sanskrit :—

(a) So he wandered from holy place to holy place until he reached Manipur. Now the rajah of that place had a beautiful daughter whose name was Chitrāngadā. Arjuna loved her, and sought her for his bride. The rajah said : ‘ I have no other child, and if I give her unto thee, her son must remain here to become my heir, for the god Śiva has decreed that the rajahs of this realm can have each but one child.’ Arjuna married the maiden, and he dwelt for three years at Manipur. A son was born, and he was named Chitrāngada. Thereafter Arjuna set out on his wanderings once more. 15

(b) Truly, as Solomon said, ‘ A soft answer turneth away wrath.’ Boys, be of good temper. ‘ There is nothing like humility. ‘ Kind words awaken kind echoes.’ The world around us is a mirror in which a man may behold the reflection of himself. ‘ To love’ is ‘ to be loved.’ If you behave rudely to others, you get rudeness in return ; civility brings its usual recompense. 10

SANSKRIT.

SECOND HONOURS PAPER.

Examiner—BABU UMACHARAN BANERJEE, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. What is the dictum of Indian Dramaturgy as to the ‘ Unity of time and place’ ? Does *Bhavabhūti* observe it in the *Uttaracarita* ? Give the ‘ time analysis’ of the drama, and indicate the places of action of the several acts. 10

2. Compare the character of *Sakuntalā* of Kalidāsa with that of the *Mahābhārata*. How has Kalidāsa improved it ? 10

3. (a) Translate into English *two ślokas*, selecting *one* from *each* group :— 8

GROUP A.

(i) तीव्राघातप्रतिहततरुः कम्बलप्रेक्षकः

पादाकृष्टव्रततिवलयसङ्कुसुमातपाशः ।

सूतीं विप्रक्षपस इव न भिन्नसारङ्गपृथो

धम्मरिण्यं प्रविशति गङ्गाः स्रन्दनालोकाभौतः ॥

(ii) रथेनानुष्ठातस्त्रिभुवनगतिना तौर्ध्वजलधिः

पुरा सद्दीपां जयति वसुधामप्रतिरथः ।

इष्टायं सत्त्वानां प्रसभदमनात् सर्व्वदमनः

पुनर्याज्ञयाख्यां भरत इति लोकस्य भरणात् ॥

GROUP B.

(iii) अलसलुलितमुरधान्यच्चसञ्ज्ञातखेदा-

इशिथिलपरिरम्भैर्दत्तसंवाहनानि ।

परिवृद्धितमृणात्तीवृर्ध्वलान्यङ्गकानि

त्वमुरसि मम कृत्वा यत्र निद्रामवाप्ता ॥

(iv) परिपाण्डुदुर्बलकपोलमुन्दरं

दधती विलोककवरीकमाननम् ।

करुणस्य मूर्तिरथवा शरीरिणी

विरहव्यथेव वनमेति जानकी ॥

(b) Expound the *samāsas* in the underlined word either in (i) or in (iii) and (iv). 2

(c) Account for the *ka* in अङ्गकानि (iii), and in विलोककवरीक (iv), and for the लट् in जयति (ii). 3

(d) Derive आघात (i) and तौर्ध्व (ii). 2

(e) Give the third person singular forms of the roots of आघात (i) in *lit* and *luh*, and of खेद (iii) in *luh*. 2

(f) Name the *alamkāra* in *śloka* (iv). 1

4. (a) Refer to the context and explain in *ṭikā* form one extract from group A and one from group B:— 12

GROUP A.

(i) श्रुतं भवद्भिरधरोत्तरम् ।

आजन्मनः प्राठमशिक्षितो य-

स्वस्याप्रमाणं वचनं जनस्य ।

परातिस्वन्धानमधीयते ये-

विद्येति ते सन्तु किलासवचः ॥

(ii) स्वप्नो नु साया नु सतिधमो नु

क्लिष्टं नु तावत्फलमेव पुण्यम् ।

अथद्वित्वेय तश्चोतमेते

मनोरथानामनटप्रपाताः ॥

GROUP B.

(iii) विलुलितमतिपूरेर्वाष्यमानन्दशोक-

प्रभवमवचजन्ती तृष्णयोस्तानदीर्घा ।

अपयति दृश्येणं खेदनिष्यन्दिनी ते

धवलवज्रकुलसुरधा दुर्यधकुल्येव दृष्टिः ॥

(iv) अतिशयितसुरासुरप्रभावं

शिशुमवलोक्य तवैव तुल्यरूपम् ॥

कुशिकसुतमखद्विषां प्रमाथे

धृतधनुषं रघुनन्दनं स्मरामि ॥

(b) Derive स्म and स्मि in (ii), and conjugate their roots in *lat* 3rd person singular. 2

(c) Derive अपयति and दृश्य in (iii); give their alternative forms, and conjugate their roots in the 3rd person singular of *lit* and *lat* respectively. 3

(d) Comment grammatically on धृतधनुषम् in (iv). 1

(e) Name the *alamkāra* in *śloka* (iv). 1

5. Turn into Sanskrit and write explanatory notes in English on any three of the following extracts, referring each to its context:— 12

(a) कुशे किल सग्रां अश्वी आउलीकरिष्य अस्सुकारणं पुच्छेति ।

(b) तेन हि गह्वीदपाक्षेत्रो होहि । किं तु ए उवचयं तत्रोवयं त्ति पेक्षामि ।

(c) पुत्रवीर जो सरणं सो तुह समीवे वटुह ।

(d) दिद्विष धूमाउलिद्विद्विषोवि जग्नमाणस्स पाण्य एव आहुनी पडिडा ।

(e) भट्टालके इदो अट्टं तुम्हायं शुभयोमुखं होवु ।

6. Give the purport of any one of the following *ślokas* with clear reference to the context:— 6

(a) आविर्भूतज्योतिषां ब्राह्मणानां

ये व्याहारास्तेषु मा संशयोऽभूत् ।

भद्रा ज्योषां वाचिष्यन्तीर्निघन्ता

व्रैते वाचं विभुतां व्याहरन्ति ॥

(b) मनोरथस्य यद्दौर्जं तद्वेवेनादितो हतम् ।

लतायां पूर्वखूनायां प्रसूनस्यागमः कुतः ॥

7. Translate into Sanskrit:—

25

It had been very hot that day, the evening was charming, the dew moistened the withered grass; no wind, a peaceful night; the air was fresh without being cool; the sun after its setting had left in the sky red vapours whose reflection made the water rose-coloured. The trees were loaded with cuckoos, who answered one another. I walked in a sort of ecstasy, delivering my senses and my heart to the enjoyment of all this. Absorbed in my sweet reverie, I prolonged my walk well on into the night without perceiving that I was tired. I noticed it at length. I then lay down with delight. The canopy of my bed was formed by the trees; a cuckoo was just above me; I went to sleep to his song; my sleep was sweet, my dreaming more so.

SANSKRIT.

THIRD HONOURS PAPER.

Examiner—D. R. BHANDARKAR, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate any two of the following passages into English:—

(a) अथ मदम्बा पूर्णभद्रबोधितार्था तादृशेऽपि व्यसने नाति-

-15

विह्वला कुलपरिजनानुयाता पद्मा मेव क्षीरमागत्य मत्पितुस्तमाङ्ग-
मुत्सङ्गेन धारयन्त्यासित्वा राज्ञे समादिशत्—एष मे पतिस्तवापकर्ता
न वेति वैवमेव जानाति । न मेऽनयास्ति चिन्तया फलम् । अथ तु
पाणिग्राहकस्य गतिमननुप्रपद्यमाना भवत्कुलं कलङ्कयेयम् । अतो
ऽनुमन्तुमर्हसि भर्त्रा सद्यः चिताधिरोहणाय मामिति । श्रुत्वा चैतत्प्रीति-
युक्तः समादिक्षत्क्षितौश्वरः—क्रियतां कुलोचितः संस्कारः । उत्तरोत्तरं
च पश्चिमं विधिसंस्कारमनुभवतु मे भगिनीपतिरिति । चण्डाले तु
मत्प्रीतिर्निवृत्तकलमन्त्रादिप्रयासे संस्थिते कामपालोऽपि कालदष्ट एवेति
स्वभवनोपनयनममुष्य स्वमाहात्म्यप्रकाशनाय महीपतिरन्वमंस ।
आनीतश्च पिता मे विविक्तायां भूमौ दर्भशय्यामधिशाय्य स्थितोऽभूत् ।
अथ मदम्बा मरणमण्डनमनुष्ठाय सकृदणं सखीरामन्त्र मुहुरभिप्रणम्य
भवनवैवता यत्ननिवारितपरिजनाक्रान्तिता पितुर्मे शयनस्थानमेकाकिनौ

प्राविशत् । तत्र च पूर्वमेव पूर्णभद्रोपस्थापितेन च मया वेनतेयतां गतेन निर्विघ्नैर्जुतं भर्तारमेक्षत । दृष्टुतमा पत्युः पादयोः पर्यम्मुखी प्रणिपत्य मां च सुहृर्मुहुः प्रसुतस्तनी परिष्वज्य सहर्षवाद्यगव्वम- गइत् । पुत्र योऽसि ज्ञातमात्रः पापया मया परित्यक्तः च किमर्थमेवं मामतिनिर्घृणामनुगृह्णासि । अथवेष निरपराध एव ते जनयिता । युक्तमस्य प्रत्यानयनमन्तकाननात् ॥

(b) अथपुन्य इतविश्वस्तयोधमस्त्योतसंस्तपोतममुत्र नाविक- नायकमनभिसरमभिपत्य जीवग्राहमग्रहीषम् । अशौ चाशौस्त एव भीमधन्वा । तं चाहमवबुध्य जातव्रीडमब्रवम्—तात किं दृष्टानि ज्ञातान्तविलसितानि इति । ते तु सांयात्रिका मदीयेनेव शृङ्खलेन तमतिगाढं बद्धा हर्षकिलकिलारवमकुर्वन्मां चापूजयन् । तुर्वारा तु सा नौरननुकूलवातमुन्ना दूरमभिपत्य कमपि द्वीपं निविडमासिषुवती । तत्र च स्वाप्तु पानीयमेधांसि कन्दमूलफलानि संजिघृक्ष्वो गाढपाति- तांशलावलमवातराम । तत्र चासीन्महाशैकलः । सोऽहम्—अहो रमणीयोऽयं पर्वतनितम्बभागः कान्ततरेयं गन्धपाशावत्युपत्यका शिशिरमिदमिन्द्रीवरारविन्दमकरन्दविन्दुचन्द्रकोत्तरं गोत्रवारि रम्यो ऽयमनेकवर्णकुसुममञ्जरीभरस्तरुवनभोग इत्युत्तमतरया दृष्ट्वा बहु बहु पण्यन्नलक्षिताद्यावच्छोणौधरशिखरः शोणीभूतमुत्प्रभाभिः पद्मराग- सोपानशिलाभिः किमपिः नालीकपरागधूसरं सरः समध्यगाम् । खातस्य कांक्षिदद्युतस्वावून्विसभङ्गानास्त्राद्य अंसलग्नकङ्कारस्तीरवर्तिना केनापि भीमरूपेण ब्रह्मराक्षसेनाभिपत्य कोऽसि कुतस्त्योऽसि इति निर्भर्तेयताभ्यधीये । निर्भयेन च मया सोऽभ्यधीयत—सौम्य सो ऽहमस्मि द्विजन्मा । शत्रुहृत्सादर्यवमर्णवाद्यवननायं यवननाविशित्रग्रावाणमेनं पर्वतप्रवरं गतो यदृच्छयास्मिन्सरसि विश्रान्तः । भद्रं तवेति ॥

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(c) अथमहं परिवर्तितस्त्रीवेषस्ते कन्या नाम भवेयम् । अनुगतस्य मया त्वमुपगम्य धर्मासनगतं धर्मवर्धनं वक्ष्यामि—ममेयमेकैव बुहिता । ज्ञातमात्रायां त्वया जनन्यस्याः संस्थिता । माता च पिता च भूत्वाहमेव व्यवर्धयम् । एतदर्थमेव विद्यामयं शुल्कमर्जितुं गतोऽभूद- वल्गिनगरीमुज्जयिनीमण्डपेवाशुकुलजः कोऽपि विप्रशरकः । तस्मै चेत्यमनुमता दातुमितरस्मै न योग्या । तद्वशीभूता चेत्यम् । स च

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विलम्बितः । तेन तमानीय पाणिमस्या ग्राहयित्वा तस्मिन्नुक्तभारः
 संन्यसिष्ये । दुरभिरक्ततया च हुहितृणां भुक्तशेषवानां विशेषतश्चा-
 मातृकानामिह वेवं मातृपितृस्थानीयं प्रजानामापन्नशरणमागतोऽस्मि ।
 यदि वृद्धं ब्राह्मणमधीतिनमगतिमतिथिं च मामनुग्राह्यपक्षे गणयत्यादि-
 राजचरित्तृयो वेदः शेषा भवद्भुजतस्त्वायामखण्डितचारित्रा
 तावदध्याक्षां यावदध्याः पाणिग्राहकमानयेयमिति । स एवभूक्तो
 नियतमभिमनायमानः स्वहुहितृसन्निधौ मां वासयिष्यति । आगामिनि
 मसि फाल्गुने राजान्तःपुरजनस्य तोर्धयात्रोत्तमो भविष्यति । तीर्थ-
 स्थानात्प्राच्यां दिशि शरत्तेपान्तरमतिक्रम्य वानौरवलयमध्यवर्तिनि
 कार्त्तिकेयसुखे करतलगतेन शुक्लाम्बरयुगलेन भवान्स्थायति । स
 खल्वहमनमिशङ्क एवेतावन्तं कालं सङ्गमिविदृत्य राजकन्याया
 भूयस्तस्मिन्नुत्सवे गङ्गामसि विहरन्विहारव्याकुले कनकासमाजे मग्नोप-
 सृतस्त्वदभ्यास एवोन्मज्जयामि । पुनस्त्वदुपहृते वाससी परिधाया-
 पनीतदारिकावेष्टो जामाता नाम मूत्वा त्वामेवानुगच्छेयम् ।

2. Discuss the correctness of the following:—

10

- (a) अनोन्मां इमे ब्राह्मण्यो भोजयतः ।
- (b) सजयते सजं भक्तः ।
- (c) परकृपालेशतः शास्त्रार्थः अधिगच्छति तस्मै नमः ।
- (d) शकामञ्जलिभिः पातुं वाताः केतकगन्धिनः ।
- (e) उग्रं तपस्तपति ।
- (f) स मां विदितभक्तिं महर्षिर्निवेदयिष्यति ।
- (g) माता प्रसूततनया जामातृगेहं गता ।
- (h) निरौह्य रेमे शरदः कृतार्थताम् ।

3. Explain and illustrate the rule relating to the formation of लिट् 8
 with the help of the roots भू, चर्स् and कृ.

4. State the general principle underlying the use of the reflexive 12
 voice (कर्मकर्तृ) in Sanskrit. Can all roots be used reflexively? Give
 reasons for your answer. Discuss the forms:—

गच्छति ग्रामं स्वयमेव, पठते शास्त्रं स्वयमेव; मेदिनी स्वयं
 वसूनि वृग्धे; and चिकीर्षते कठः ।

5. Give the third person singular in सुङ् of the following roots:— 10
 झी, च, ज, जि, ट्, उप + यम्, प्र + खा, and सम् + क्.

Either,

6. (a) Write an essay in English or Sanskrit on the philosophy of 30
 the Rigveda.

Or,

(b) Describe the characteristics and functions attached to the 30
 following gods and goddesses of the Vedic pantheon:—Dyaus, Varuna,
 Indra, Savitr, Rudra, Aditi, and Bṛhaspati.

SANSKRIT.

FOURTH HONOURS PAPER.

Examiner—BAJOU ASUTOSH SASTRI, M.A.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks.

1. (a) Translate into English any two of the following passages:— 20

(i) अहो विधातृस्थाने रुपनिष्पादनयत्नः । तथाहि यदि
 नामेयमात्मरूपोपहसिताशेषरूपसंपदुत्पादिता किमर्थमपगतस्पर्शसंभो-
 गमुखे कृतं कुले जन्म । मनो च मातङ्गजाति स्पर्शशेषभयादस्पृश्यतेय-
 मुत्पादिता प्रजार्पतिना । अन्यथा कथमियमक्लिष्टता लाट्यस्य ॥

(ii) अथ मुहूर्त्तार्दिव वैशम्पायनः प्रतीहार्थ्यां मुहूर्त्तपञ्चरः कनक-
 वेत्तलतावलम्बिना किञ्चिदवनतपूर्वकायेन सितकञ्चुकावच्छन्नवपुषा
 जरा धवलितमौलिना गद्गदस्वरेण मन्दमन्दसंचारिणा विहंगजाति
 प्रीत्या जगत्कलहं मेनेव कञ्चुकिनातुगम्यमानो राजात्तिकमाजगाम ॥

(iii) अधुनापि यत्र जलधरसमये गम्भीरमभिनवजलधरनिवहनि-
 नादमाकर्ण्य भगवतो रामस्य त्रिभुवनविवरव्यापिनश्चापघोषस्य स्वरन्तो
 न गृह्णन्ति शष्पकवलमजस्रमश्रुजललुलितदीनदृष्टयो वीक्ष्यशून्या दश
 दिशो जराजर्जरितविषाणकोटयो ज्ञानकीर्षवर्धिता जीर्णसृगाः ॥

(b) Give the forms in सुङ् third person singular of the roots of 8
 the words underlined in (i); expound the *samāsas* in the words under-
 lined in (ii); and parse the words underlined in (iii).

2. Explain in Sanskrit any two of the following extracts :—

16

(a) गुह्य इवाप्रतिहतशक्तिः कमलयोनिरिव विमानोक्तराज-
हंसमण्डलो जलधिरिव लक्ष्मीप्रसूतिर्गङ्गाप्रवाह इव भगीरथपथप्रवृत्तो
रविरिव प्रतिदिवसोपजायमानोदयो मेरुरिव सकलभुवनोपजीव्यमान-
पादच्छाया दिग्गज इवानवरतप्रवृत्तदानार्द्रोक्तकरः ॥

(b) उत्सादिताशेषद्विषदिश्वनमपि ज्वलत्पूतापानलमायतलोच-
नमपि सूक्ष्मदर्शनं महादोषमपि सकलगुणाधिष्ठानं कुपतिमपि कलत्र-
वल्लभमविरतप्रवृत्तदानमप्यमदमतिशुद्धस्वभावमपि कृष्णचरितमकरमपि
हस्तस्थितसकलभुवनतलं राजानमद्राक्षीत् ॥

(c) प्रावृडिव घनश्यामलानेकशतद्वलंकृता च चन्द्रमूर्तिरिव
सततसुलसार्थानुगता हरिणाध्यासिता च राज्यस्थितिरिव चमरसृग-
वालव्यजनोपश्रिता सभदगजघटापरिपालिता च गिरितनयेवस्थायु-
संगता सृगपतिषेविता च ज्ञानकीव प्रसूतकुशलवानिशाचरपरि-
गृहीता च ॥

3. (a) Explain in Sanskrit any two of the following passages :—

12

(i) अज्जोति यो न द्विषतो निहन्तुं विद्वन्त्ये नाप्यवलैर्द्विषद्भिः ।

स श्वावगाहं कलहं विदध्यादासीत दुर्गादिविवर्त्यंश ॥

(ii) ब्रह्मर्षिभिर्नूनमयं सवेवैः सन्तापिते रात्रिचरत्तयाय ।

नराकृतिर्वानरसैन्यशाली जगत्त्रय्यो विहितोऽभ्युपायः ॥

(iii) क्रोडन् भुजङ्गन मृहान्पातं कश्चिदथा जीवति संशयस्यः ।

संवेदमानो नृपतिं प्रभूदं तथैव यज्जीवति सोऽस्यलाभः ॥

(b) Parse the word underlined in (i); derive the words underlined in (ii) and give any alternative forms they may have; and derive the word underlined in (iii).

7

4. Translate into English any two of the following passages :—

12

(a) ब्रह्मो वासरसङ्गे भौमो रश्मेण लक्षणसलिलावासे ।

सहसा संरम्भसो ब्रूरावृविमण्डलसमो लोले ॥

(b) आयास सम्मवासणसंहरसंहारहिमहरसमच्छायम् ।

वाणं वारिसमूहं संगच्छ पुराणचारुदेहावापम् ॥

(c) फलभरमन्यतरुवरमविकूरत्रिरुदहारिकुसुमापोडम् ।

हरिणकलङ्कमणिसम्भवबहुवारिभरसुगम्भीरगुहम् ॥

5. Translate the following passages into Sanskrit :—

25

(a) When the forest fire has passed away owing to the downpour of the near cloud, the tree is threatened by the lightning; he who has escaped from the crocodile's throat must fear to get drowned in the ocean. Thus fate soon creates a fresh terror for the person who has warded off a danger, in order that he may realize the sweetness of the good fortune which he is to enjoy afterwards.

(b) One is not to be called a mendicant for his having only renounced his possessions, or for his having only adopted a life of dependence on charity. He who renounces the possessions and pleasures of the world in a sincere frame of mind is to be regarded a true mendicant. Unattached at heart though attached in outward show, standing aloof from the world, having broken all his bonds, and regarding friend and foe alike, such a man, O king, is regarded to be emancipated.

SANSKRIT.

FIFTH HONOURS PAPER.

Examiner—BABU SURENDRANATH MAJUMDAR, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English any four of the following extracts :—

16

(a) य ई॒ष्य॑ति॒ पर्व॑तान् तिरः॑ समु॒द्रम॑र्ण॒वं ।

स॒मु॒द्रि॒रग्न॑ आ ग॒हि ॥

आ ये त॒न्व॑न्ति॒ र॒श्मि॑भि॒स्तिरः॑ समु॒द्रमो॑जसा ।

स॒मु॒द्रि॒रग्न॑ आ ग॒हि ॥

(b) ता वा॑ वा॒स्तू॒न्य॒ग्नि॑सि॒ गम॑धे

यत्र॑ गा॒वो भू॑रि॒शृ॒ंगा अ॒यासः॑ ।

अत्रा॑ह॒ तवु॑रगा॒यस्य॑ वृ॒षाः

पर॑मं प॒दम॑व॒ भाति॑ भूरि॑ ॥

(c) द्यावा॑ चि॒दस्यै॑ पृथि॒वी न॑मेते

शु॒ष्मा॑हि॒दस्य॑ पर्व॑ता भय॑न्ते ।

यः सो॒मपा॑ नि॒क्षि॒तो वज्र॑बाहु-

यो वज्र॑हस्तः स ज॒नास॑ इ॒न्द्रः ॥

- (d) अ॒र्घ्यं वो दे॒वीसु॒षसं॑ वि॒भाती॑
 प्र वो॑ भर॒ध्वं नम॑सा सु॒वृत्तिं॑ ।
 ऊ॒र्घ्यं म॑धु॒घा दि॒वि पा॒जो अ॒श्नेत्
 प्र रो॑च॒ना सर॒वे र॒श्वसं॑ दृ॒क् ॥
- (e) दे॒वेभ्यो॑ हि प्र॒थमं॑ य॒ज्ञिये॑भ्यो-
 सु॒तत्त्वं सु॒वर्षि॑ भा॒गसु॑त्त॒मं ।
 आ॒दि॒त्तामा॑नं॑ स॒वित॒व्यं शु॒भे-
 नू॒च॒नीना॑ जो॒विता॑ मा॒नुषे॑भ्यः ॥

2. Explain in Sanskrit *any five* of the following extracts, and comment on *any three* of the Vedic archaisms in *each* of those *five* :—

- (a) त्वं वि॒श्वस्य॑ मे॒धिर दि॒वश्च॒ रम॑श्च॒ राज॑सि ।
 स या॑म॒नि प्र॑ति॒श्रुधि॑ ॥
 उ॒दु॒त्त॒मं सु॑मु॒ग्धि नो॑ वि पा॒शं म॑ध्य॒मं च॑त ।
 अ॒वा॒ध॒मानि॑ जी॒वसे॑ ॥
- (b) अ॒द्या दे॒वा उ॒दिता॑ सूर्य॑स्य
 निर॑ह॒सः पि॒पृता॑ निर॒वद्या॑त् ।
 तन्ने॑ मि॒त्रो वर॑णो मा॒मह॑न्ता-
 म॒दितिः॑ सि॒न्धुः पृ॒थि॒वी उ॒त द्यौः॑ ॥
- (c) स जा॒यमानः॑ पर॒मे यो॑म-
 ना॒वि॒र॒ग्निर॑भ॒वन्मा॑त॒रि॒श्वने॑ ।
 अ॒स्य क्र॒त्वा स॒मिध॑ान॒स्य म॑ज्ज॒नः
 प्र द्या॒वा श्रो॑चिः पृ॒थि॒वी अ॒रोच॑यत् ॥
- (d) म॒ह्यं आ॒दि॒त्यो नम॑सोप॒सद्यो॑
 या॒त॒य॒ज्जनो॑ मृ॒णते॑ सु॒श्रे॒यः ।
 त॒स्मा ए॒तत् प॒न्य॑त॒माय॑ शु॒ष्ट-
 न॒ग्नो मि॒त्राय॑ ह॒वि॒गा जु॑होत ॥
- (e) रथे॑न पृ॒थु॒पा॒जसा॑ दा॒श्या॑सु॒प ग॑च्छ॒तं
 इं॒द्र॒वायू॑ ह॒ वा॒ग॒तं ॥
 इं॒द्र॒वायू॑ अ॒यं सु॒त॒स्तं दे॒वेभिः॑ स॒जोष॑सा ।
 पि॒ब॒तं द्रा॒क्षुषो॑ मृ॒चे ॥

- (f) वीतिशोत्रं त्वा कवे शुभंतं वमिधौमहि ।
 अग्ने हवन्तमध्वरे ॥
 अग्ने विश्वेभिरा गहि देवेभिर्हव्यदातये ।
 होतारं त्वा वृणौमहे ॥
- (g) दिवो नो वृष्टिं मसतो ररीध्वं
 प पिन्वत वृष्णो अश्वस्य धाराः ।
 अर्वाङ्क्षितेन स्तनयितुने-
 क्षपो निषिंचन्नसुरः पिता नः ॥

3. Translate into English :—

5

अग्ने त्वनया वर्णयन्ति । पुरा किलेन्द्रादयो वैनयज्ञं समाजग्नुः ।
 मृत्समदोऽपि तत्रागत्य सदस्यासीत् । देव्याश्चेन्द्रजिघांसया तत्र समा-
 गमन् । तान् वृष्टा निर्जगाभेन्द्रो यज्ञात् मृत्समदाकृतिः । स च मृत्समदो
 वैनेन पूजितो यज्ञवादान्निरगच्छत् । निर्गच्छन्तं तमृषिं वृष्टा अयमेवेन्द्र
 इति मन्यमानास्तमसुराः परिवव्रुः ॥

4. Narrate the legend of शुभःशेष the *ṛṣi* of the Varuṇasūkta (no. 2) of your text.

5

5. Mention the chief characteristics of Varuṇa and of Indra,

12

6. Give the corresponding classical Sanskrit forms for any eight of the following :—

8

महः । नाभा ॥ अकः । कर्त् । करामहे । तारिषत् । वीमहि ।
 वोचावहे । गमथौ । ववृत्स्व ॥

7. Give the meanings of any eight of the following :—

8

क्षय । रजस् । सुक्षत्र । मृलीक । ऋष्य । स्वश । दम । वृक्ष ।
 युष्म । इळा ॥

8. (a) Illustrate the Vedic uses of (i) the Upasargas, and of (ii) शिन् (the Classical Sanskrit suffix in कश्चित् &c.).

4

(b) Give the following forms of declension :—

5

(i) Two Vedic forms of masculine nouns ending in *a*.

(ii) One Vedic form of neuter nouns ending in *a*.

(iii) Two Vedic forms of feminine nouns ending in *ī*.

(c) Exemplify :—

2

Either,

Two phonetic peculiarities of the Vedic dialect.

Or,

‘In the Veda are found certain second persons singular made by adding the ending *si* of the present indicative, and having an imperative sense.’

SANSKRIT.

SIXTH HONOURS PAPER.

Examiner—RAI RAJENDRACHANDRA SASTRI, BAHADUR, M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

A. GRAMMAR.

Answer any TWO questions of Group A, and any THREE of Group B.

GROUP A.

1. Discuss the question of import of a *Prātīpadika*, and refer to the divergence of opinion on the subject. 12
2. Discuss the correctness of the following sentences:— 12

- (a) अजिग्रहत् तं जनको धनुस्तत् ।
- (b) तुभ्यं त्वयं मन्ये ।
- (c) श्रीदत्तस्य पाशकः, पुत्रपोत्राणां दर्शकः ।
- (d) योऽस्मान् द्वेष्टि यं च त्वयं द्विष्टः ।
- (e) नास्ति घटोऽनुपलब्धः ।
- (f) कुमार्थ इव कान्तस्य त्रयन्ति स्पृहयन्ति च ।
- (g) दानीयो विप्रः ।
- (h) पञ्चकेन पशून् क्रीणाति ।

3. Give the meanings of the underlined particles in the following:— 12

- (a) धिक् जालम् देवदत्तम् अपि सिञ्चेत् पलायुम् ।
- (b) जपमनु प्रावर्धत् ।
- (c) वपिडोऽपि स्यात् ।
- (d) अन्वर्जुनं योद्धारः ।
- (e) अतिदेवान् कृष्णः ।
- (f) यदत्र समाभिष्यात् तद्वीयताम् ।
- (g) उपखाट्यां द्वेष्टः ।
- (h) तिलेभ्यः प्रति यद्वति माषान् ।

GROUP B.

4. Explain and illustrate:—

12

- (a) एकविभक्ति चापूर्वनिपाते ।
 (b) उपपदमतिङ् ।
 (c) कारनाम्नि च प्राचां हलादौ ।
 (d) वृद्धिनिमित्तस्य च तद्धितस्यारक्तविकारे ।

5. Give the non-compound forms of the following, referring to 12 rules of grammar where necessary:—

याघ्री, कुम्भकारः, महाविशिष्टः, महस्त्रेष्टा, अतिश्वी, वानरश्वा, गोगर्भिणी, कौटतक्तः, केयय्यपञ्चम्, खादतमोदता, and अधरोत्तरम्.

6. Explain and illustrate the principal rules relating to पुंस्काच in 12 the बहुव्रीहि compound.

7. Account for the *samāsas* in the following:—

12

चन्दनगन्धः, घटरूपम्, भाष्याब्धिः (कृतिगम्भीरः), असन्देहः, त्रिभुवनविधाता, अश्वघासः, अर्थगौरवम्, and पश्चिमरात्रः.

B. RHETORIC.

Answer any FIVE questions.

8. Discuss:—

3

शेषः सर्वासु पुष्पाति प्रायोवक्रोक्तिषु श्रियम् ।
 भिन्नं द्विधा स्वभावोक्तिर्वक्रोक्तिश्चेति वाङ्मयम् ॥

9. Explain and illustrate some of the important varieties of उपमा 9 mentioned by Daṇḍin.

10. Define and illustrate with examples the following *alaṅkāras*:— 9

विभावना, व्यतिरेक, समासोक्ति, निदर्शना, and प्रियः.

11. Discuss the *alaṅkāras* in the following:— 8

- (a) धन्यासि वेदर्भि गुणैरुदारैर्यया समाकृत्यत नैषधोऽपि ।
 इतः स्तुतिः का खलु चन्द्रिकाया यद्विषयस्युत्तरलीकरोति ॥
 (b) पयोमुचः परीतापं हरत्येव शरीरिणाम् ।
 नन्वात्मलाभो महतां परमुःखोपशान्तये ॥
 (c) बटभूलः फलभरेः पुष्पाङ्गनिशमर्थिनः ।
 शान्द्रच्छायो महावृक्षः सोऽयमासादितो मया ॥

- (d) प्रतिकूलतामुपगते हि विधौ विफलत्वमेति बहुसाधनता ।
अवलम्बनाय दिनभर्तु रभूत पतिष्यतः ऋषदृष्टमपि ॥

12. Discuss:—

8

निष्ठुगतोद्गीर्णवान्तादि गौतवृत्तिव्यापाश्रयम् ।
अतिसुन्दरमन्यत्र ग्राम्यकक्षां विगाहते ॥

13. Explain and illustrate:—

8

अलङ्कारान्तगणामप्येकमाहुः परायणम् ।
वागीशमहितामुक्तिमिमामतिशयाह्वयाम् ॥

14. Explain the different kinds of प्रस्तावना mentioned in the Sāhitya-darpaṇa, and illustrate the same with examples from your texts.

SANSKRIT.

Paper-setters— { HON. SIR ASUTOSH MUKHERJEE, KT., C.S.I.,
M.A., D.L.
MAHAMAHOPADHYAYA KALIPRASANNA BHAT-
TACHARYYA, M.A.
BABU BRAJALAL CHAKRAVARTI, M.A., B.L.
BABU ABINASHCHANDRA GUHA, M.A.

FIRST PASS PAPER.

Examiners— { BABU JOGENDRANATH BHATTACHARYYA, M.A.
BABU BIHARILAL BANERJEE, M.A.
BABU BHAGABATKUMAR SASTRI, M.A.
BABU SURENDRANATH BHATTACHARYYA, M.A.
BABU KASINATH DAS.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Either,

1. (a) Trace briefly in English the process of world-creation, as delineated in the first chapter of Manu. 8

Or,

(b) Give a synopsis in English of Draupadi's exhortation to Yudhishthira in the first Canto of the *Kirātārjunīya*.

2. Explain in Sanskrit, after Mallinātha, *either* of the following 10 stanzas:—

(a) सखीनिव प्रीतिपुञ्जोऽनुजीविनः

समानमानान् सुहृदश्च बन्धुभिः ।

स सन्ततं दर्शयते गतकथः

कृताधिपत्यामिव साधु बन्धुताम् ॥

(b) सुखेन लभ्या दधतः कृषोवलै-

रकृष्टपच्या इव शक्यसम्पदः ।

वितन्वति क्षेममदेवमातृका-

शिराय तस्मिन् कुरवश्चकावति ॥

3. (a) Translate into English *any three* of the following *ślokas*:— 21

(i) ततः स्वयंभूर्भगवानव्यक्तो यज्जयन्निदम् ।

महाभूतादि वृत्तोजाः प्रादुरासीत्तमोनुदः ॥

(ii) एवं स ज्ञात्रत्सप्राभ्यामिदं सर्वं चराचरम् ।

संजीवयति चाज्जहं प्रसापयति चाव्ययः ॥

(iii) ब्राह्मणं दशवर्षं तु शतवर्षं तु भूमिपम् ।

पितापुत्रौ विजानीयाद्ब्राह्मणस्तु तयोः पिता ॥

(iv) यश्चोचत वीक्ष्य मानिनी

परितः खेदमयेन चक्षुषा ।

अपि वागधिपस्य सुर्वचं

वचनं तद्विधौत विस्मयम् ॥

(v) ज्वलतस्त्व जातवेदसः

सततं वैरिभूतस्य चेतसि ।

विदधातु शमं शिवेतरा

रिपुनातीनयनाम्बुसन्ततिः ॥

(b) Change the voice completely in (a) (i) or (a) (iv). 4

(c) Derive *प्रसापयति* in (a) (ii), and give the *कृद्*, third person, singular, of its root. 2

(d) Explain the formation of the compound *पितापुत्रौ* in (a) (iii). 3
What case is *तयोः*, and why ?

(e) What is the meaning of the suffix मयट् in केचनमेव, in (a) (iv)? 3
Comment on the use of the genitive in बावधिपक्ष.

4. Elucidate briefly in English the leading idea in *each* of the following extracts:—

(a) सर्वेषां तु स नामानि कर्माणि च पृथक् पृथक् । 4

वेदशब्देभ्य एवाहो पृथक् संख्याश्च निर्ममे ॥

(b) उपपत्तिरुदाहृता बला- 3

इनुमानेन न चागमः क्षतः ।

5. Translate into English *either* of the following passages:— 7

(a) ननु मनुप्रणीतत्वेऽस्य शास्त्रस्य स पृष्ठः प्रत्युवाचेति न युक्तम् ।
अहं पृष्ठो ब्रवीमीति युज्यते । अन्यप्रणीतत्वे च कथं मानवीयसंहितेति ।
उच्यते । प्रायेणाचार्याणामियं शैली यत् स्वाभिप्रायमपि परोप-
देशमिव वर्णयन्ति ।

(यथा केनचित्कृततीर्थं पयसि गम्भीरेऽपि प्रवेष्टारः सन्ति
तीर्थकरस्तु विरलस्तद्वन्नीतावपि निगूढमपि तत्त्वं वक्तरि सति बोद्धारः
सन्ति वक्ता तु न सुलभः । अत इयं च साधु वक्तृतीति युज्यते विस्मय
इति तात्पर्यार्थः ।

6. (a) Account for the *vivhaktis* in *any four* of the underlined words 8
in the following extracts:—

(i) तस्मिन्नग्रे स भगवानुषित्वा परिवत्सरम् ।

(ii) इदं शास्त्रं तु बृहदाहो मासेव स्मयमादितः ।

विधिवद् ग्राहयामास ।

(iii) गुरो वसन् संचिनुयद्गङ्गाधिगमिकं तपः ।

(iv) द्विषां विधाताय विधातुमिहृतः ।

(v) द्विताङ्ग यः संश्रुणुते स किं प्रभुः ।

(vi) परैति कार्यं यश्चा समं वपुः ।

(b) Justify the use of the singular in इत्येते in— 2

धर्मार्थवृत्त्यते श्रेयः ।

7. Translate into Sanskrit *any two* of the following passages:— 25

(a) The king Soma was among the Gandharvas. The gods and the sages were constantly thinking of him: 'How may this king Soma come unto us?' Vāc (वाच) said, 'The Gandharvas long for women. Buy with *me*, who am a woman, too.' 'No,' said the gods.

‘how can we be without thee?’ ‘Buy, by all means,’ said she, ‘whenever you will have need of me, I shall return unto you.’ ‘Very well.’ They bought the king Soma with her.

(b) The midland people were celebrating a sacrificial session (यज्ञ) on the banks of the Sarasvatī. And Kavaṣa sat in the midst of it. ‘Thou art,’ they said to him, ‘thou art the son of a slave-girl. We will not eat with thee.’ He ran away in a rage and glorified the Sarasvatī with this hymn (यज्ञ). She came up at his heels. Then they regarded him as free from sin. And, turning round, they said, ‘We salute thee, O sage! Do not kill us. Thou, whom she is following, art verily the noblest amongst us.’

(c) ‘I must study the Vedānta.’

‘Admirable! Are you, however, aware that the Vedānta is but the end of the Veda? Surely, you can’t climb to the top at once.’

‘Then I shall study the Veda first.’

‘You are “twice-born,” I hope?’

‘Oh yes, I am a Brahmin, and am duly invested with the sacred cord too.’

‘Well, but there are three Vedas, namely the *Rgveda*, the *Yajurveda*, and the *Sāmaveda*. Why, there’s a fourth as well, the *Atharvaveda*. Which of them would you study?’

SANSKRIT.

SECOND PASS PAPER.

Examiners—
BABU SATKARI ADHIKARY, M.A.
BABU SURENDRANATH MAJUMDAR, M.A.
BABU KOKILESWER SASTRI, M.A.
BABU MATILAL BHATTACHARYA, M.A.
BABU KASINATH DAS.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Either,

1. (a) Give briefly, in English, the substance of the conversation 5
between King Dushyanta and the disciples of Kanva and Śakuntalā.
as given in Canto V of the *Sakuntalā*.

Or,

(b) The soliloquy of Janaka, as given in Canto IV of the *Uttara-rāmacharita*.

2. (a) Translate into English *either* of the following groups:— 12

GROUP A.

(i) ग्रीवाभङ्गाभिरामं मुहुरनुपतति स्यन्दने बद्धवृष्टिः

पञ्चाङ्गेन प्रविष्टः शरपवनभयान्मूयसा पूर्वकायम् ।

दर्भैरुद्धावलीढैः श्रमविवृतसुखश्रंभिः कोऽर्थवर्त्मा

पश्योदग्रप्रतत्वाद्द्वियति बहुतरं स्तोत्रमुर्व्या प्रयाति ॥

(ii) किमत्रोच्यते प्रसवः खलु प्रकर्षपर्यन्तः खेदस्य परमं चैत-

दन्योन्यसंश्लेषणं पित्रोः—

अन्तः करणतत्त्वस्य दम्पत्योः खेदसंश्रयात् ।

आनन्दप्रान्तिरेकोऽयमपत्यमिति वदधते ॥

GROUP B.

(i) क्षौमं केनचिदिन्दुपाण्डु तरुणा माङ्गल्यमाविकृतं

निष्ठूतश्ररणोपरागसुलभो लाक्षारसः केनचित् ।

अन्येभ्यो वनदेवताकरतलैरपर्वभागोत्थिते

ईक्षान्याभरणानि तत्किंसलयोद्धेदं प्रतिद्वन्द्विभिः ॥

(ii) वत्से साम्प्रतिकमेवैतत् दुःखितैर्दुःखनिर्वापणानि ।

यतः—पूरोत्पीडे तडागस्य परीवाहः प्रतिक्रिया ।

शेकक्षोभे च हृदयं प्रलापैरेव धार्यते ॥

(b) Explain the formation of, and parse, पञ्चार्देन and भूयसा in 6
śloka (i), and अपत्यम् in śloka (ii), Group A.

(c) Derive अवलीढ in śloka (i), Group A, and निष्ठूत in śloka (i), 6
Group B, and give the forms of the roots, in third person singular,
in लट् (present tense) and लिट् (past tense).

(d) Expound and name the samāsas in पूर्वकायम् in śloka (i), 4
Group A, and आपर्वभागोत्थितैः in śloka (i), Group B.

(e) Derive दम्पत्योः in śloka (ii), Group A, and क्षौमम् माङ्गल्यम् in 3
śloka (i), Group B.

(f) Explain the formation of परीवाह, and account for the singu- 2
lar use in शेकक्षोभे in śloka (ii), Group B.

3. (a) Refer to the context, and give in your own Sanskrit, the 14
substance of the ślokas in either of the following groups:—

GROUP A.

(i) श्रमप्रधानेषु तपोधनेषु गूढं हि दाहात्मकमस्ति तेजः ।

स्यर्शानुकूला इव सूर्यकान्तास्तदन्यतेजोऽभिभवाद्भवन्ति ॥

- (ii) सन्तानवाहीन्यपि मानुषाणां
 दुःखानि बह्वन्वयियोगजानि ।
 दृष्टे क्षणे प्रेषसि दुःखहानि
 खोतःसहस्रेणैव संभवन्ते ॥

GROUP B.

- (i) यदुत्तिष्ठति वर्णभ्यो नृपाणां क्षयितत्फलम् ।
 तपःषड्भागमक्षयं इदित्यारण्यका हि नः ॥

- (ii) यथा तिरस्त्रीनमलातशल्वं
 प्रत्युपमन्तः सविषश्च दंशः ।
 तथैव तीव्रो हृदि शोकशङ्कु-
 र्मर्माणि कृन्तन्नपि किं न बोद्धः ॥

(b) Change the voice of the first line of *śloka* (i), Group A. 2

(c) Expound the *samāsas* in तपःषड्भागम्, and say in what विभक्ति is नः in *śloka* (i), Group B. 2

(d) Derive प्रेषसि in *śloka* (ii), Group A, and give the nominative plural form of its base. 2

(e) Derive चारण्यक in *śloka* (i), and तिरस्त्रीन and प्रत्युप in *śloka* (ii), Group B, and give the लिट् (past tense), and लुङ् (aorist) third person singular forms of the root of the last word (प्रत्युप). 5

(f) Write grammatical notes on उत्तिष्ठति in *śloka* (i), Group B. 2

4. (a) Explain, in English, the allusions in the following extracts:— 4

- (i) सुखपरस्य हरैरुभयैः कृतं
 त्रिदिवमुद्धतदानवकण्टकम् ।
 तव शरीरधुनानतपर्वभिः
 पुरुषकोशरिणश्च पुरा नखैः ॥

- (ii) तुरगविजयव्यानुर्वीभिदः समराश्वरे
 कपिलमहसामर्षात् प्रष्टान् पुरा प्रपितामहान् ।
 अगणिततनूपातं तपत्वा तपांसि भगीरथो
 भगवति तव स्पृष्टानङ्गिश्चिराद्बुद्धदीधरत् ॥

(b) Give the लिट् (present tense) third person singular form of the root of तपत्वा, and parse चिरात् in *śloka* (ii), and expound the *samāsas* in उद्धतदानवकण्टकम् in *śloka* (i). 3

5. Translate *either* of the following into English :—

3

(a) आताम्बहरिअपण्डुर वसन्तमासस्व जीवसवस्व ।

दिदो सि चूअकोरअ उदुमङ्गल तुमं पवारमि ॥

(b) तुमं सि मर चूअङ्कुर दिखो कामस्व गहिअधयअस्व ।

पहिअजणजुवइलकलो पज्जइमहिओ सरो होहि ॥

6. Translate *any five* of the following extracts into Sanskrit :—

25

(a) There is in the territory of Kalinga a city of the name of Śobhāvati. In it there was a wise Brāhmaṇa, named Yaśaskara, who had offered many sacrifices, and had an excellent wife, named Mekhalā.

(b) There the moon, that gladdens the eyes of the happy, rose up, adorning the face of the east; and though it lit up the quarters of the sky, it closed in me all hope of life.

(c) When the Brāhmaṇa had told his story in these words, the prince said to the other Brāhmaṇa, 'I am much pleased; now tell me, how did you escape from so great a danger?'

(d) Once on a time a king of the Daityas, desiring a son, went to the bank of the Ganges, and with his wife performed asceticism for a hundred years to propitiate Brahmā.

(e) When the ambassador said this, the whole court was in a state of excitement; but the king, though in wrath, said, 'Away with you, your person is inviolable, otherwise you could not have escaped alive.'

(f) There a combat took place between the gods and Asuras, and Vidyutprabha rushed in wrath upon Indra. And Indra, finding himself gradually worsted by the Daitya in the interchange of missiles, flung his thunderbolt at him.

SANSKRIT.

THIRD PASS PAPER.

Examiners—{ BABU HARPHAR BANERJEE, M.A.
BABU PASUPATINATH BHATTACHARYA, M.A.
BABU BHABESCHANDRA BANERJEE, M.A.
BABU DEBENDRAKUMAR BANERJEE, M.A.
BABU KASINATH DAS.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate *any three* of the following passages into English :—

30

(a) देव शिरशि देवस्याज्ञामादायेन निर्दोषं वेषं स्वीकृत्य माल-
वेन्दुनगरं प्रविश्य तत्र गूढतरं वर्तमानः तस्य राज्ञः समस्तमुदन्तजातं

विदित्वा प्रत्यागमम् । मानौ मानसारः स्वधेनिकायुष्मत्तन्त्राये संपराये भवतः पराजयमनुभूय वैलङ्घ्यलङ्घ्यद्वयो वीतदयो महाकालनिवासिनं कालौविलासिनमगश्चरं महेश्चरं समाराध्य तपः प्रभावसन्तुष्टादक्षादेव वीरारातिघ्नीं भयदां गदां लब्ध्वात्मानमप्रतिभटं मन्यमानो महाभिमानो भवन्तमभिभोक्तुमुद्युक्ते ।

(b) निजराज्याभिलाषी मितभाषी सोमकुलावतंसो राजहंसो मुनिमभाषत । भगवन् मानसारः प्रश्लेन वैवश्लेन मां निर्जित्य मङ्गोष्णं राज्यमनुभवति । तदहमप्युग्रं तपो विरच्य तमरातिमुन्मूलयिष्यामि लोकशरख्येन भवत्कारख्येनेति नियमवन्तं भवन्तं प्राप्तव्यमिति । ततस्त्रिकालक्षस्तपो धनो राजानमवोचत् । सखे शरीरकार्श्याकारिणा तपसालम् । वसुमतीगर्भस्थः सकलरिपुकुलमर्दनो राजनन्दनो नूनं संभविष्यति । कंचन कालं तूष्णीमास्वेति ।

(c) ततो मर्षय भगवन् अभूमिरेषा शापस्य इत्यनुनाम्यमानो ऽपि विबुधैः सपाध्याय स्खलितमेकं तमस्वेति बद्धाञ्जलिपुटैः प्रसाह्यमानो ऽपि स्वशिष्यैः पुत्रमाकृथाभ्यापसः प्रत्यूहमिति निवार्यमाणोऽप्यत्रिणा रोषावेशविषयो दुर्वासा दुर्विनीते व्यपनयामिते विद्याजनितामुद्र-तिमिमाम् अघस्याद्रक्ष मर्यलोकम् इत्युक्त्वा तक्षापोदकं विससजे ।

(d) अन्यस्मिन् दिवसे भैरवाचार्योऽपि राजानं द्रष्टुं भयो तस्मै च राजा खान्तःपुरं सपरिजनं सकोषमात्मानं निवेदितवान् । स च विहस्यो-वाच तात क्व विभवाः क्व च वयं वनवर्द्धिताः । धनोष्मणा ह्यायत्यलं लतेव मनस्विता । अस्माकमियमपरोपतापिनी राजते तेजस्विता । भवादृशा एव भाजनं भूतेः इति । स्थित्वा च कञ्चित् कालं जगाम ।

2. (a) Give the forms, in the third case-ending singular and plural, of any four of the following words:— 8

निर्जर, निशा, वारिवाह, श्वेतवाह, मघवत्, and वृत्रहन्.

(b) Give the forms in लृट् and लुङ्, third person singular, of any four of the following roots:— 9

ब्रू, दग्ध्, वृश्, वृत्, श्वस्, and सज्.

(c) Give the derivation of any three of the following words:— 6

वातमज, शुष्क, विह्वस्, कामदुघा, यायजूक, and श्रीषकेल.

Either,

3. (a) Give the various instances in which a word takes the second case-ending. 6

Or,

Account for the case-endings in the words underlined in the following passages:—

(i) मासेन व्याकरणमधीते ।

(ii) केषेषु समरीं हन्ति ।

(iii) अश्वमेधेन यजेत ।

- (b) Explain the *samāsas* in any three of the following words:— 6

कृष्णसर्पः, एकवीरः, सप्तर्षयः, and नीललोहितः.

4. Correct or justify any three of the following:— 6

(a) अतिसर्व्वस्वै सर्व्वाय नमः ।

(b) तपसः फलानां विधाता ।

(c) शत्रुं पराजयति राजा ।

(d) सुगन्धं पुष्पं विनोति ।

(e) श्रीकामेन देवा उपासितव्याः ।

Either,

5. (a) Explain the position of the *Mahābhārata* in the Sanskrit literature, and discuss the date and the method of its composition. 10

Or,

(b) Trace the growth of the drama in Sanskrit, and notice the special features of it with illustrations from some important works.

Either,

6. (a) Give an account of the ethical poetry in Sanskrit, with notes on some of the important works. 10

Or,

(b) Give the cardinal doctrines of Hindu philosophy, and give an account of the Sāṃkhya system.

7. Write notes on any two of the authors named below, with an account of the works of each:—Bāṇa, Bhartṛihari, Āṇandadeva, and Dāmodara Miśra. 10

PALI.

(MAHAMAHOPADHYAYA DR. SATISCHANDRA
 VIDYABHUSHAN, M.A., PH.D.
Paper-setters— BABU REBATINATH CHATTERJEE, M.A.
 (BABU SURENDRANATH MAJUMDAR, M.A.

FIRST HONOURS PAPER.

*Examiner—*BABU SAIENDRANATH MITRA, M.A.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks.

1. Give a full account of the several versions of the Dhammapada, 10
 noting especially any reference or references that may point to the
 authorship of the text.

2. Quote or refer to passages in the Dhammapada containing any 8
 four of the following ideas:—

(a) the distinction only of colour, but not of caste, in Buddhistic
 India;

(b) human body as compared to a tabernacle;

(c) equanimity of the wise compared to a solid rock unshaken
 by storm;

(d) insatiety of greed even by a shower of gold pieces;

(e) the possession of grey hair does not necessarily indicate the
 "Elder."

3. Translate into English any four of the following, clearing all 20
 ambiguities and fully explaining the words italicised:—

(a) Na tāvatā dhammadharo yāvatā bahu bhāsati
 Yo ca appam pi sutvāna dhammaṃ kāyena passati
 sa ve dhammadharo hoti yo dhammaṃ na-ppamajjati.
 Na tena hoti dhammattho yen'atthaṃ sahasā naye,
 Yo ca atthaṃ anattaṃ ca ubho niccheyya paṇḍito

(b) Attanā va kātāṃ pāpam attanā samkilissati,
 attanā akatāṃ pāpam attanā va visujjhati,
 suddhī asuddhī paccattam nāñño aññaṃ visodhaye.
 Attadatthaṃ paratthena bahunāpi na hāpaye,
 attadatthaṃ abhiññāya sadatthapasuto siyā.

(c) Na silabbatamattena bāhusaccena vā puna
 athavā samādhilābhena vivicasayanena vā
 Phusāmi nekkhammasukham aputhujjanasevitam;
 bhikkhu vissāsamāpādi appatto āsavakkhayaṃ.

(d) Yogā ve jāyati bhūrī ayogā bhūrisamkhayo
 etaṃ dvedhāpathaṃ natvā bhavāya vibhavāya ca
 tath' attānaṃ niveseyya yathā bhūrī pavaddhati.
 Vanaṃ chindatha, mā rukkhā, vanato jāyati bhayaṃ
 chetvā vanaṃ vanathaṃ ca nibbanā hotha bhikkhavo.

(e) Yesā ca susamāradha nīcāṃ kāyagatā sati
 akiccaṃ te na sevanti kicca sātaccakārino,
 satānaṃ sampajānānaṃ atthaṃ gacchanti āsavā
 Mātaraṃ pītaraṃ hantvā rājano dve ca khattiye
 ratthaṃ sānucaraṃ hantvā aniggho yāti brāhmaṇo.

4. (a) Parse *āpādi*, derive *bāhusaccena* and *appatto* in (c) and 2
disjoin *sadattthapasuto* in (b) above.

(b) How are desiderative and denominative verbs formed in 4
Pali? Give three examples of each.

(c) Decline the bases of *any three* of the following:— 3

bhūri, in the instrumental, *satānaṃ* in the ablative;
ubho in the genitive, and *bahu* in the dative cases.

(d) Conjugate in the second person plural the roots of *any three* 3
of the following:—

niccheyya in the past preterite (*parokkhā*);
naye in the optative (*sattamī*);
ñatvā in the present tense (*vattamānā*); and
chindatha in the aorist (*ajjatanī*).

(e) Name and expound the *samāsas* in *any two* of the follow- 2
ing:—

samādhilābhena, *viviccāsayanena*, and *nekkhammasukhaṇ*.

(f) Comment fully on *āsavā*. 2

5. Explain according to the Commentator “*sabbe sattā āhāratthi-* 4
tikā.” Refute or justify in the light of the commentator Max Müller’s
rendering of *āhāra* (enjoyment), occurring in the following lines from
the Dhammapada:—

“Yassāsavā parikkhīṇā āhāre ca anissito
suññato animitto ca vimokkho yassa gocaro
ākāse va sakuntanaṃ padaṃ tassa durannayaṃ.”

6. Give in your own Pāli the substance of *either* of the following:— 6
the Jarāvagga, *the Ratanasutta*.

7. Discuss the date and the authorship of the text of the *Khud-* 6
dakapāṭha.

Or,

8. Write in your own Pāli a note as to the training of novices in so 6
far as the same appears from the way in which *Kuṇḍarapañha* is
composed.

8. Translate into English:— 30

(a) Kin tav’ attho vane tāta Ujjuhāno va pāvuso,
verambā ramaṇīyā te, paviveko hi jhāyinaṃ.
Yathā abbhāṇi verambo vāto mudati pāvuse,
saññā me abhikīranti vivekapaṭisaññutā.
Aṇḍaro aṇḍasambhavo sīvathikāya niketacārīko
uppādayateva me satim sandehasmi virāganissitaṃ.
Yaṃ ca aññe na rakkhanti yo ca aññe na rakkhati,
sa ve bhikkhu sukhāṃ seti kāmesu anapekkhavā.
Acchodikā puthusilā gonāṅgulamīgāyutā
ambusevālasañchannā te selā ramayanti maṃ.
vasitaṃ me araññesu kaṇḍarāsu guhāsu ca
sonāsanesu pantesu vālamiganisevite,
ime haññantu vajjhantu dukkhāṃ pappontu pāṇino,
saṃkappaṃ nābhijānāmi anariyaṃ dosasaṃhitaṃ.
pariçiṇṇo mayā Satthā, kataṃ Buddhassa sāsanaṃ
ohito garuko bhāro, bhavanetti samūhaṃ.

b) Kālākā bhamaravaṇṇasadisā vellitaggaṃ mama muddhajā
ahum
te jarāya sāṇavākasadisā saccavādivacanāṃ anaññathā.

vāsito va surabhikaraṇḍako pupphapūraṃ mama uttamari-
gabhu
taṃ jarāya sasalomagandhikaṃ saccavādivacanāṃ anañ-
ñāthā,
kānanāṃ va sahitaṃ suropitaṃ kocchasūcivicitaggasobhi
taṃ
taṃ jarāya virāḷaṃ tahiṃ tahiṃ saccavādivacanāṃ anañ-
ñāthā.

PALI.

SECOND HONOURS PAPER.

Examiner—MAHAMAHOPADHYAYA DR. SATISCHANDRA VIDYA-
BHUSHAN, M.A., PH.D.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Translate the following into English :—

15

(a) Katham bhante Nāgasena yattha cakkhuviññāṇaṃ uppajjati tattha manoviññāṇaṃ pi uppajjati. Ninnattā ca mahārāja dvārat-
tā ca cinṇattā ca samudācaritattā cāti. Katham bhante Nāgasena
ninnattā yattha cakkhuviññāṇaṃ uppajjati tattha manoviññāṇaṃ
pi uppajjati, opammaṃ karohīti. Taṃ kim maññasi mahārāja:
deve vassante katamena udakaṃ gaccheyyāti yena bhante ninnāṃ
tena gaccheyyāti. Athāparona samayena devo vasseyya, katamena
taṃ udakaṃ gaccheyyāti. Yena bhante purimaṃ udakaṃ gataṃ
taṃ pi tena gaccheyyāti. Kinnu kho mahārāja purimaṃ udakaṃ
pacchimaṃ udakaṃ āṇāpeti: yenāhaṃ gacchāmi tvam pi tena
gacchāhīti, pacchimaṃ vā udakaṃ purimaṃ udakaṃ āṇāpeti: yena
tvam gacchissasi ahaṃ pi tena gacchissāmīti. Na hi bhante anālāpo
tesaṃ aṇṇamaṇṇehi, ninnattā gacchantīti.

(b) Tatr' idaṃ sattamaṃ cittaṃ vibhattiṃ āpajjati: ye te mahā-
rāja sammāsambuddhā sabbaññūno dasabaladhārā catuvesāraja-
visāradā, atthārasahi buddhadhammehi samannāgatā, ananta-jinā
anāvapaṇa-ñāṇā, tesaṃ taṃ cittaṃ sabbattha lahukaṃ upajjati lahu-
kaṃ pavattati, kimkāraṇaṃ: sabbattha parisuddhattā. Api nu kho
mahārāja nārāssa sudhotassa vimalassa niggaṇṭhissa sukhumadhā-
rassa ajimhassa avarikassa akuṭilassa dāhacāpa-samārūhassa khoma-
sukhume vā kappāsa-sukhume vā kambalasukhume vā balavanipāti-
tassa dandhāyitattaṃ vā lagganaṃ vā hotīti.

2. (a) State the philosophical views of two of the following 4
Tīrthakaras:—Pūraṇa Kassapo, Makkhali Gosālo, and Nigaṇṭho
Nātaputto.

(b) How do you prove the identity of Milinda with the Graeco- 5
Bactrian king Menander?

3. (a) Explain two of the following terms:—*Lakkhaṇa-paṇho*, 4
Meṇḍaka-paṇho, and *vetanḍi*.

(b) Answer the question involved in the following:— 4
Bhante Nāgasena, nav'ime puggalā mantitaṃ guyhaṃ vivaranti
na dhārenti, katame nava?

4. Give the substance of the following in English:—

4

Bodhisattānaṃ bhante Nāgasena parakkamo dakkhāpito, pāraṃ ca Jinānaṃ bhiyyo obhāsita, cariyaṃ carato pi tāva Tathāgatassa sadevake loke setṭhabhāvo anudassito; sādhu bhante Nāgasena, thomitāṃ Jinasāsanaṃ, jolitā Jinapāraṃ, chinnā tithiyānaṃ vādaganthi, bhinnā parappavādakumbhā, pañho gambhīro uttānikato, gahanaṃ agahanaṃ kataṃ, sammā-laddhaṃ Jinaputtānaṃ nibbāhanaṃ.

5. Explain the following verse in Pāli in the manner of Buddhaghosa:—

7

Pare ca na vijānanti
'mayam ettha yamāmasa,'
ye ca tattha vijānanti
tato sammanti medhagā.

6. Give in English a summary of either Devadattassa vatthu or Aggassāvaka-vatthu.

7

7. Translate the following into English:—

10

Te therāṃ khamāpetvā antogāmaṃ pāvīsimsu. Mañussā te nisidāpetvā bhikkhāṃ datvā, 'kiṃ bhante ayyānaṃ gamanāṅkāro paññāyati.' 'Ama upāsakā, Satthāraṃ datṭhukāṃ' amhā' ti. Te punappunaṃ yācitvā tesāṃ gamanacchandaṃ eva ñatvā anugantvā paridevītvā nivattimsu. Te pi anupubbena Jetavanaṃ gantvā Satthāraṃ ca mahāthere ca therassa vacanena vanditvā punadivase yattha therassa kañiṭṭho vasati taṃ vithiṃ piṇḍāya pāvīsimsu. Kuṭimbiko te sañjānitvā nisidāpetvā, katapaṭisañhāro 'bhātika-thero me kuhiṃ' ti puechi. Ath' assa te taṃ pavattim āroccesum. So tesāṃ pādamūle pavattento roditvā puechi: 'idāni bhante kiṃ kātabbāṃ' ti.

Derive *nisidāpetvā* and *datṭhukāṃ*. Give the forms in *ajjatanī* (aorist) and *parokkhā* (preterite) of the root of *nivattimsu*. Decline the base of *bhante* in the objective and locative cases. Give the feminine form of *pavattento*.

10

8. Translate the following into English:—

30

Atīte Bārāṇasīyaṃ Brahmaḍatte rajjaṃ kārento Bodhisatto tassa amacco ahoṣi. Tadaṃ rañño Mahilāmukho nāma maṅgalahatthi ahoṣi silavā ācārasampanno, na kiñci viheṭhoti. Ath', ekadivasaṃ tassā sālāya samipe rattibhāga-samanantare corā āgantvā tassa avidūre nisinnā corā mantāṃ mantayimsu: 'evaṃ ummaggo bhinditabbo, evaṃ sandhiechedakammaṃ kattabbam ummaggañca sandhiechedaṃ maggasadisāṃ tithasadisāṃ nijjataṃ niggumbaṃ katvā bhandam haritum vattati, harantena māretvā va haritabbam, evaṃ utṭhātum samattho nāma na bhavissati, corena ca nāma silācārayutena na bhavitabbam, kakkhaleṇa pharusena sāhasikena bhavitabbam' ti evaṃ mantevā aññamaññaṃ uggaṇhāpetvā agamaṃsu. Eten'eva upāyena punadivase pīti bahudivase tattha āgantvā mantayimsu. So tesāṃ vacanaṃ sutvā 'maṃ sikkhāpentīti' saññāya 'idāni mayā kakkhaleṇa pharusena sāhasikena bhavitabbam' ti tathārūpo va ahoṣi, pāto va āgataṃ hatthigopakaṃ soṇḍāya gahetvā bhūmiyaṃ pothetvā māresi, aparaṃ pi tathā aparaṃ pi tathā ti āgatāgataṃ māreti yeva. 'Mahilāmukho ummattako jāto ditṭhaditṭhe māretīti' rañño ārocayimsu. Rājā Bodhisattam pahini: 'gaccha paṇḍita, jānāhi kena kāraṇena so dutṭho jāto' ti.

PALI.

THIRD HONOURS PAPER.

Examiner—DR. BENIMADHAB BARUYA, M.A., D.LITT.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

GROUP. A.

SANSKRIT GRAMMAR.

1. Combine according to the rules of sandhi *any two* :— 1
 - (a) *San + acyutah*, (b) *Patan + taruḥ*, (c) *Bhavān + lābhah*.
2. Decline *any six* :— 3
 - (a) *Muni* in the 7th case-ending singular.
 - (b) *Go* in the 2nd case-ending singular.
 - (c) *Go* in the 6th case-ending singular.
 - (d) *Danḍin* in the 5th case-ending singular.
 - (e) *Yusmad* in the 6th case-ending singular.
 - (f) *Nadī* in the 1st case-ending plural.
 - (g) *Kumārī* in the 2nd case-ending plural.
3. Illustrate *Bahuvrīhi* and *Karmadhāraya samāśas*. 2
4. Conjugate *any four* :— 4
 - (a) *Brū*, *Laṭ*, 3rd person singular.
 - (b) *Sru*, *Laṭ*, 3rd person dual.
 - (c) *Śru*, *Liṭ*, 3rd person singular.
 - (d) *Pra + āpa*, *Laṭ*, 3rd person plural.
 - (e) *Pra + āpa*, *Loṭ*, 2nd person singular.
5. Correct *any five* of the errors :— 5

So Rājagṛhasmin nagare gatvā ekaṁ munim-apaśyat. Munisya tassa antikaṁ upasarpya bahūni phala dṛṣtvā hubhukṣāpīḍito san tān yayāce.

GROUP B.

PALI GRAMMAR.

6. Apply the rules of sandhi :— 1
 - (a) *Yathā + eva*, 1
And *any two* of (b) *Sādhū + itī*, (c) *Me + ayaṁ*, (d) *Etam + avoca*.
7. Decline *any three* :— 3
 - (a) *Rājā* in genitive singular.
 - (b) *Rājā* in locative singular.
 - (c) *Bhavaṁ* in vocative singular.
 - (d) *Dhūtu* in genitive plural.
8. Conjugate :— 3
 - (a) *Gaṁ* in aorist 1st person singular.
 - (b) *Dā* in aorist 1st person singular.
 - (c) *As* in present tense 3rd person plural.

9. How are the causative and the infinitive formed? Give examples. 4

10. Explain with examples:— 3

Yenāṅgavikāro. Kālabhāvesu ca.

GROUP C.

Attempt FOUR questions only.

11. 'Pāli noun-declension has borrowed from the pronominal one.' 10
Illustrate the above and explain it philologically.

12. What does reduplication indicate in the Aryan languages? 10
Give the rules of reduplicating a verbal root. What is the reduplicated form of the Sanskrit root *sthā*?

13. Distinguish between the (i) Genealogical and the (ii) Morphological classifications of languages. Assign Pāli and French to their proper places according to the first system. 10

14. Distinguish between the Aryan and the Semitic languages in structure and inflexion. 10

15. Trace instances in languages where the verb and the noun are not distinguished. 10

16. Discuss the question of correspondence between language and thought. 10

GROUP D.

17. Translate into Pāli:— 30

(a) Whether Buddhas arise, O priests, or whether Buddhas do not arise it remains a fact and the fixed and necessary constitution of being, that all its constituents are transitory (... that all its constituents are misery . . . and that all its elements are lacking in an ego). This fact a Buddha discovers and masters, and when he has discovered and mastered it, he announces, teaches, publishes, proclaims, discloses, minutely explains, and makes it clear.

(b) The man who lives for sensual joys,
And findeth his delight therein,
When joys of sense have taken flight,
Doth smart as if with arrows pierced.

(c) The body, loathsome and unclean,
Is carrion-like, resembles dung,
Despised by those whose eyes can see,
Though fools find in it their delight.

PAII.

FOURTH HONOURS PAPER.

Examiner—MAHAMAHOPADHYAYA DR. SATISCHANDRA VIDYABHUSHAN, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate *three* of the following into English :— 15

- (a) 'Sve saṃnipāto Ānanda, sekhena gamanaṃ tahiṃ, na yuttaṃ te, sadatthe tvaṃ appamatto tato bhava.'
Iccevaṃ codito thero katvāna vīriyaṃ samaṃ iriyāpathato muttaṃ arahattaṃ apāpuni.
- (b) Therā pi te matipadīpahatandhakārā lokandhakārahananaṃhi mahāpadīpā nibbāpitā maraṇagāramahānīlena : tenāpi jīvitamadaṃ matimā jaheyyāti.
- (c) Hitvā seṭṭhaṃ brahmavimānaṃ pi manuññaṃ jegucchaṃ so sāsanaṃhetu naraḷokaṃ āgammāka sāsanaṃkiccaṃ katakicca, ko nāmañño sāsanaṃkiccaṃhi pamajje ?
- (d) Pahīnalābhasakkārā titthiyā lābhakāraṇā sayam kāsāyaṃ ādāya vasiṃsu saha bhikkhuhi. Yathāsakaṃ ca te vādaṃ buddhavādo ti dipayum, yathāsakaṃ ca kiriyaṃ akariṃsu yathāruci.

Expond the *saṃāsa* in *matipadīpahatandhakārā* in (a), and *pahīnalābhasakkārā* in (d). Analyse the sandhi in *sadatthe* in (a). Explain the meaning of *iriyāpatha* in (a). Derive *seṭṭhaṃ* and *jegucchaṃ* in (c). Conjugate the root of *lābha* in the *ajjatanī* (aorist) and *parokkhā* (past tense) third person.

2. (a) Discuss the date of composition of the *Mahāvamsa*. 5

(b) Describe how a schism or schisms in the Buddhist church arose in the second century of the Buddha's *nirvāṇa*. 5

3. (a) Explain *two* of the following terms :—*vībhajjavādī*, *Buddha-sāsanadāyādo*, and *chalabhīṇo*. 2

(b) Give in English the substance of the following :— 5

Yassa cittaṃ uppajjati na nirujjhati,
tassa cittaṃ nirujjhissati n'uppajjissati.
Yassa vā pana cittaṃ nirujjhissati n'uppajjissati,
tassa cittaṃ uppajjati na nirujjhatīti.

4. Translate the following into English :— 30

- (a) Nirantaraṃ nokadijjapākūjitaṃ
suphullapaṅkeruhagandhavāsitaṃ
gato yasassi migadāyammuttamaṃ
tahiṃ tapassī aha paṇcavaggiyā.
Devātidevaṃ tibhavekanāthaṃ
lokantaḍassim sugataṃ sugattaṃ
kumantanaṃ te iti mantayimṃsu.

Bhutvāna oḷārika-annapānaṁ
suvanṇavaṇṇo paripuṇṇakāyo
etāvuso'yaṁ samano imassa
karoma nāṁhe abhivādanādīm.

- (b) Kāle nikkhamanā sādhu, nākāle sādhu nikkhamo,
akālena hi nikkhamma ekakaṁ pi bahūjano
na kiñci atthaṁ joteti dhamkasenā va kosiyaṁ.
Dhiro ca vidhividdhānaññū paresaṁ vivarantagū
sabbāmitte vasikatvā kosiyo va sukhī siyā.
(c) Yass'ete caturro dhammā vānarinda yathā tava
saccaṁ dhammo dhiti cāgo dīṭhaṁ so ativattatīti.

5. (a) Frame sandhi in *three* of the following :—

3

सखे एहि, असौ अद्याः, जगत् शरण्यः, and मातुः रोदनम् ॥

(b) Decline *three* of the following Sanskrit words :—**पुत्री** in the genitive case; **पति** in the dative case; **औ** in the ablative case; **धुवन्** in the locative case; and **विद्स्** in the instrumental case.

(c) Conjugate in the third person *three* of the following Sanskrit roots :—**ह** in **लिट्**; **हृत्** in **लोट्**; **अश** in **लङ्**; **बन्ध** in **लट्**; and **बद्ध** in **लृट्** ॥

6. (a) Give the causative (**निजन्**) form of *two* of the following Sanskrit roots :—**जन्**, **दृश्**, and **दा** ॥

(b) Give the desiderative (**सन्ना**) form of *two* of the following Sanskrit roots :—**आ**, **जि**, and **लभ्** ॥

(c) Derive *three* of the following Sanskrit words :—

विद्वः, ब्राह्मण्यं, नामधेयं, मित्रघाती, and भङ्गः ॥

7. (a) Frame *two* Sanskrit sentences to illustrate the use of the verb **नो** in **लट्** third person singular number in the active and passive voices.

(b) Correct the following :—

6

सो पाठात् विरमते । विजयतु राजन् । नराण् पश्य । हवींसि
आह्व । नगरे अधिवसति ॥

PALI.

FIFTH HONOURS PAPER.

Examiner—BABU SAIENDRANATH MITRA, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

A. TEXTS.

1. Translate into English *any two* of the following, adding notes 20
where necessary:—

(a) Kim Ānanda Tathāgato bhikkhusamgham ārab bha kiñcid eva udāharissati? Ahañ kho pan' Ānanda etarahi jinno vuddho mahallakee addhagato vayo anuppatto, asitiko me vayo vattati Seyyathā pi Ānanda jarasakataṃ veghamissakena yāpeti, evam eva kho Ānanda veghamissakena maññe Tathāgatassa kāyo yāpeti. Yasmim Ānanda samaye Tathāgato sabbanimittānam amanasikārā ekaccānamvedanānam nirodhā animittam cetosamādhim upasam pajja viharati, phāsukato Ānanda tesmim samaye Tathāgatassa kāyo hoti. Tasmāti' Ānanda attadīpā viharatha attasaraṇā an-aññasaraṇā, dhammadīpā dhammasaraṇā anaññasaraṇā.

(b) Na nu evam Ānanda mayā patigacce' eva akkhātā, sabbehi' eva piyehi manāpoli nānābhāvo vinābhāvo aññathābhāvo? Taṃ kut' ettha Ānanda labbhā? Yaṃ taṃ jātā bhūtā saṅkha-tā palokadhammā taṃ vata mā palujjiti n'etaṃ thānam vijjati. Yaṃ kho pan'etaṃ Ānanda Tathāgatena cattā vantaṃ muttā pahīnaṃ patinissattham ossattho āyu-saṅkhāro. Ekamsena vācā Tathāgatena bhāsita: "Na ciraṃ Tathāgatassa parinibbānam bhavis-sati, ito tiṇṇaṃ māsānam accayena Tathāgato parinibbāyissatīti." Taṃ vacanaṃ Tathāgato jivita-hetu puna paccāvamissatīti, n'etaṃ thānam vijjati.

(c) Yo kho pana bhante Brahmuno pakativanno anabhisambha-vaniyo, so devānaṃ Tāvatisānaṃ cakkupathasmiṃ. Yadā bhante Brahmā Sanāmkumāro devānaṃ Tāvatisānaṃ pātu bhavati, so aññe deve atirocati vaṇṇena c'eva yasasā ca. Seyyathā pi bhante sovaṇṇo viggabo mānusaṃ viggahaṃ atiricati, evam eva kho bhante yadā Brahmā Sanāmkumāro devānaṃ Tāvatisānaṃ pātu bhavati, so aññe deve atirocati vaṇṇena c'eva yasasā ca. Yadā bhante Brahmā Sanāmkumāro devānaṃ Tāvatisānaṃ pātu bha-vati, na tassa parisāyam koci devo abhivādeti vā paccuttheti vā āsa-nena nimanteti vā. Sabbe tuṇhībhūtā pañjalikā pallānkena nisi-danti..

2. Give in your own Pali an account of Buddha's meeting with 6
Ambapālī.

Or,

Give, according to the Mahāgovinda Suttanta, an account, in your own Pali, of Nibbana and the Path.

3. Narrate the incidents connected with Buddha's visits to Pata- 5
ligāma, Kotigāma and Nādikā.

4. Who are the Thūpārahās? Why are they so called? 4

5. Comment on the technicalities in *any three* of the following:— 5
thūnāni, sīlavipatti, sikkhākāma-bhikkhu, arupasaññi and dham-manvaya.

B. UNSEEN.

6. Translate into English:—

30

(a) Bhoto kho rañño janapado sakantāka sa-upapīlo, gāma-ghātā pi dissanti nagara-ghātā pi dissanti pantha-duhanā pi dissanti. Bhavañ ce kho pana rājā evaṃ sakantake janapade sa-upapīle balim uddhareyya, akicca-kāri assa tena bhavañ rājā. Siyā kho pana bhoto rañño evaṃ assa : 'Aham etaṃ dassukhilaṃ vadhena vā pabbājanāya vā samūhanissāmi,' na kho pan etassa dassukhīlassa evaṃ sammā samugghāto hoti.

(b) Acelako hoti muttācāro hatthāpalekhano, na-ehibhadantiko, na-tittlha-bhadantiko, nābhihataṃ na uddissakataṃ na nimantanāṃ sādīyati. So na kumbhi-mukhā patigaṇhāti, na kaḷopi-mukhā patigaṇhāti, na elakanantaraṃ na daṇḍamantaraṃ na musalaman-taraṃ, na dvinnāṃ bhuñjamānānaṃ, na gabbhiniyā na pāyamānāya na purisantaragatāya, na saṃkittisu, na yattha sā upaṭṭhito hoti, na yattha makkhikā saṇḍa-saṇḍa-bārīnī na macchaṃ na maṃsaṃ, na sūraṃ na merayaṃ no thusodakaṃ pivati.

C. SANSKRIT GRAMMAR.

7. Form (a) adverbs of time, place, cause, and manner from each of the following:— 8

किम्, इदम्, अद्, यत्.

(b) adjectives from अत्, अस्माकम्. 2

8. Translate into Sanskrit, using Taddhita forms or derivatives (from words placed within brackets) for expressions in italics:— 12

(a) *The son of six mothers* (षष्माह) led the army of the gods and defeated the demon.

(b) *A daughter's son* (दुहितृ) can inherit a property.

(c) In such moonlight the word *becomes milky* (दुग्ध).

(d) *In old age* (वृद्ध) the king entered on the ascetic state.

9. Give (a) the accusative, in all numbers, of *any two* of the following:— 2½

मयिन्, जरस्, मघवन्

(b) the vocative singular and locative of *any two* of the following:— 1

राजन्, भूपति, उग्रस्.

(c) the nominative dual of the present participle neuter of *any two* of the following:— 2

या, शी, आप.

(d) the nominative singular masculine of the comparative of 1½
दूर, वड, वडस्.

(e) the third person singular Present Desiderative of आ, यु, 2
शस्, जि.

PALI.

SIXTH HONOURS PAPER.

Examiner—DR. BENIMADHAB BARUYA, M.A., D.LITT.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

GROUP A.

Attempt FIVE questions only.

1. Mention the most important cities of India referred to in the Buddhist canonical literature, and indicate their probable sites. 10
2. Review the economic condition of India in the sixth century B.C., dwelling mainly upon (a) the trade-routes of the age, (b) the modes of conveyance, (c) the duties on merchandise, (d) currency, (e) the agents of production. 10
3. What light do the Buddhist texts throw on the popular religious belief of the Indians in the sixth and seventh centuries B.C. ? 10
4. Give some account of the Śākya, their mode of life, and their political institutions. What led to their extermination ? 10
5. Who were the Wanderers (Paribbājaka) ? Mention their various orders. 10
6. What was the nature of the Dhamma preached by Asoka in his edicts ? 10
7. Give a brief account of the reign of Kanishka and of his connexion with the Buddhist church. 10

GROUP B.

Either,

8. Write a note on the origin of Pali, the local Indian dialect from which it originated, and its connexion with the Vedic and the Classical Sanskrit. 13

Or,

Discuss briefly the various theories on the origin of language.

Either,

9. Distinguish between the stemforming suffixes and personal suffixes, and illustrate them with Sanskrit and Pali. 12

Or,

Discuss :—‘The more a sentence is broken up the clearer will its meaning be.’

10. Give an account of the polysynthetic languages, their structure, and geographical location. 13

11. Examine briefly the main theories connected with the original home of the primitive Indo-Europeans. 13

PALI.

FIRST PASS PAPER.

Examiner—BABU SAILENDRANATH MITRA, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. When was the Khuddakapāṭha composed? Show how it forms a part of the Pāli canon. 10
2. How would you interpret the title 'Dhammapada'? Discuss the date of the first arrangement of the Dhammapada. 10
3. Summarize in simple Pāli either the Sahassavagga or the Nidhi-kaṇḍasutta. 10
4. Translate into English any four of the following, adding notes on the words italicized:— 24

(a) Adāsi me akāsi me ñātimitā sakhā ca me petānam dakkhiṇam *dajjā* pubbe kāmam anussaram. Na hi ruṇṇam vā soko vā yā c'aññā paridevanā na taṃ petānam *atthāya* evaṃ tiṭṭhanti ñātayo.

(b) Patisambhidā vimokkho ca yā ca sāvakapārami paccakabodhi buddhabhūmi sabbam otena *labbhati* Evaṃ mahiddhiyā esā *yadidaṃ* puñña sampadā tasmā dhīrā pasamsanti paṇḍitā katapuññatā.

(c) Yesam *sannicayo* n'atthi ye pariññātabhojanā *suññato* animitto ca vimokkho yesam gocaro ākāse va sakuntānam gati tesam durannayā Uyyuñjanti satimanto na nikete ramanti te hamsā va pallalam hitvā okamokam jahanti te.

(d) Sabbe tasanti *daṇḍassa* sabbe bhāyanti maccuno, attānam upamam katvā na haneyya na ghātayo. sukhakāmāni bhūtāni yo daṇḍena vihiṇsati attano sukham *esāno* pecca na labhate sukham.

(e) Attānaṃ ce piyam *jaṇṇa* rakkheyyā nam surakkhitam, tiṇṇam aññataram yānam patijaggeyya paṇḍito. Attadattham *paratthenā* bahunāpi na hāpaye, attadattham abhiññāya sadatthapasuto siyā.

5. Parse *anussaram* in (a) and *surakkhitam* in (e) above. 5
Derive *ruṇṇam* and *bhāyanti*. Name and expound the *samāsa* in *pariññātabhojanā* and *sukhakāmāni*.

Decline the base of *maccu* in the ablative.
Conjugate the roots of *hāpaye* and of *jaṇṇa* in the past perfect (Parokkhā).

6. Comment on any three of the following:—*Patisambhidā*, *paccakabodhi*, *pārami*, and *iddhi*. 6

7. Give in simple Pāli the substance of one of the following:— 5

(a) Vanappagumbe yathā phussitagge
Gimhāna, māse paṭhamasmi gimhe
Tathūpamam dhammavaram adesayi
Nibbānagāmiṃ paramam hitāya
Idam pi buddhe ratanam paṇītam
Etena saccena suvatthi hotu.

- (b) Santussuko ca subharo ca
 Appakiceo ca sallahukavutti
 Santindriyo ca nipako ca
 Appagabbho ca kulesu ananugiddho
 Na ca khuddam samācare kiñci
 Yena viññū pare upavadeyyum.

8. Translate into English :—

30

Ubho mātā ca dhītā ca mayam āsum sapattiyo
 tassā me ahu samvego abbhuto lomahamsano.
 Dhi-ratthu kāmā asuci duggandhā bahukantakā
 Yattha mātā ca dhītā ca sabhaviyā mayam ahum.
 Kāmesvādinavaṃ disvā nekkhammaṃ dāḥakhemato
 sā pabbajim Rājagahe agārāsmā anagāriyam.
 Pubbenivāsaṃ jānāmi dibbacakkhum visodhitaṃ
 ceto paricca ānāpaṃ ca sotadhātu visodhitā.
 Iddhi pi me sacchikatā patto me āsavakkhayo
 cha me abhiññā sacchikatā kataṃ Buddhassa sāsaṇaṃ.
 Iddhiyā abhinimmitvā caturassaṃ ratham ahaṃ
 Buddhassa pāde vanditvā lokanāthaṃ sirimato.

PALI.

SECOND PASS PAPER.

Examiner—MAHAMAHOPADHYAYA DR. SATISCHANDRA VIDYA-
 BHUSHAN, M.A., PH.D.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks.

1. Translate the following into English, adding notes where necessary :— 15

(a) Tena kho pana samayena āyasmā Āyupālo Saṅkheyyapari-
 veṇe paṭivasati. Atha kho Milindo rājā amacce etad avoca: Ra-
 maṇiyā vata bho dosinā ratti, kannu khvaja samaṇaṃ vā brāhma-
 ṇaṃ vā upasaṅkameyyāma sākacchāya pañhapucchānāya, ko mayā
 saddhim sallapitum ussahati kaṅkham paṭivinetunti. Evaṃ vutte
 pañcasatā yonakā rājānaṃ Milindaṃ etad avocum: Atthi mahārāja
 Āyupālo nāma thero tepitako bapussuto āgatāgamo, so etarahi Saṅ-
 kheyyapariveṇe paṭivasati, gaccha tvaṃ mahārāja, āyasmantaṃ
 Āyupālaṃ pañhaṃ pucchassūti. Tena hi bhāṇe bhadantassa āroce-
 thāti. Atha kho nemittiko āyasmato Āyupālaṃ dassanakāmo ti.
 pāhesi: rājā bhanto Milindo āyasmantaṃ Āyupālaṃ dassanakāmo ti.

(b) Yathā vā pana mahārāja ye keci siddhā saccamanugāyanti:
 jalita-pajjalitamahāaggikkhandho patinivattatūti, tesam saha saccam
 anugītena jalita-pajjalitamahāaggikkhandho khaṇena paṭinivattati,
 api nu kho mahārāja atthi tasmim jalita-pajjalite mahāaggikkhand-
 he hetu sanniceto yeva hetunā jalita-pajjalitamahāaggikkhandho
 khaṇena paṭinivattati ti. Nahi bhante, saccam yeva tattha vatthu
 hoti tassa jalita-pajjalitassa mahāaggikkhandhassa khaṇena patini-
 vattanāyāti. Evameva kho mahārāja natthi tassa pakatihetu,
 saccam yev'ettha vatthu bhavati dibbacakkhussa uppādāyāti.

2. (a) Write all that you know about Nāgasena. 6
 (b) Prove that the Milindapañha existed before the time of 5
 Buddhaghosa.

3. Answer one of the following :— 4
 (a) Rājā āha: Bhante Nāgasena, yam pan' etaṃ brūsi: nāma-rūpanti, tattha katamaṃ nāmaṃ katamaṃ rūpaṃ ti.
 (b) Rājā āha: Bhante Nāgasena, yam pan' etaṃ brūsi: diḥham addhānanti, kim etaṃ addhānaṃ nāmaṃ ti.

4. Give the substance in English of the following : 6
 Atthi me bhante Nāgasena koci attho tumhehi saddhiṃ mantayitabbo, na tattha añño koci tatiyo icchitabbo, suññe okāse pavivitte araññe atthaṅgupāgate samaṇasārūpe tattha so pañño pucchitabbo bhavissati, tattha me guyhaṃ na kātappaṃ na rahassaṃ, arahāṃ' ahaṃ rahassaṃ sunituṃ sumantaṇe upagate, upamaṃ pi so attho upaparikkhitabbo, yathā kiṃ viya: yathā nāma bhante Nāgasena mahāpathavī nikkhepaṃ arahati nikkhepe upagate, evaṃ eva kho bhante Nāgasena arahāṃ' ahaṃ rahassaṃ sunituṃ sumantaṇe upagate ti.

5. Explain the following verse in Pāli in the manner of Bud- 7
 dhaghosa :—
 Subhānupassim viharantaṃ indriyeṣu asaṃvutaṃ
 bhojanaṃhi amattaññuṃ kusitaṃ hīnaviriyaṃ,
 taṃ ve pasahati Māro vāto rukkhaṃ va dubbalaṃ.

6. Give in English a summary of either Cakkhupāla-vatthu or 7
 Kāḷiyakkhinī-vatthu.

7. Translate the following into English :— 10
 Ath' eko makkato taṃ hattim utthāya samutthāya divase divase
 Tathāgataṃ ābhisamācārikaṃ karontaṃ disvā ' ahaṃ pi kiñcid eva
 karissāmi' vicaranta ekadivasaṃ nim-makkhikaṃ daṇḍakamadhuṃ
 disvā daṇḍakaṃ bhañjitvā daṇḍaken'eva saddhiṃ madhupataṇaṃ
 satthusantikaṃ haritvā kadalipattaṃ chinditvā tattha tṭhapetvā
 adāsi; satthā gaṇhi; makkato ' karissati nu kho paribhogaṃ na
 karissatī' olokento gahetvā nisinnaṃ disvā ' kinu kho' ti cintetvā
 daṇḍakotiyaṃ gahetvā parivattetva upadhārento aṇḍakāni disvā
 tāni saṇikaṃ apanetvā adāsi.

- Derive ābhisamācārikaṃ and karontaṃ. Conjugate the roots of 10
 gaṇhi and apanetvā in the vattamānū (present tense), and parokkhā
 (preterite) third person singular number. Decline the base of satthā
 in the ablative and locative cases. Give the feminine form of
 vicaranta.

8. Translate the following extract into English :— 30
 Atīte bhikkhave Bārāṇasīyaṃ Janasandhe nāma rajjaṃ karente
 Bodhisatto tassa aggamaheṣiṃ kucchismiṃ nibbatti. Tassa muk-
 haṃ supariṃajjitaṃ kañcanādāsataṇaṃ viya parisuddhaṃ hosi atiso-
 bhaggappattaṃ. Ten'assa nāmagahanadivase Adāsamukkhakumāro
 ti nāmaṃ akāmsu. Taṃ sattavassabbhantare yeva pitā tayo vede
 sabbañca loke kattappaṃ sikkhāpetvā tassa sattavassikakāle kālaṃ
 akāsi. Amaccā mahantena sakkārena rañño sarīrakiccaṃ katvā
 matakadānāni datvā sattame divase rājaṅgaṇe sannipatitvā ' kum-
 āro atidaharo, na sakkā rajje abhisitvā taṃ abhisit-
 tissaṃ' ti ekadivasaṃ nagaraṃ alaṃkārapetvā vinicchayatthānaṃ
 sajjetvā pallaṃkaṃ paññāpetvā kumārassa santikaṃ gantvā ' vinic-
 chayatthānaṃ deva gantuṃ vattatī' āhaṃsu. Kumāro ' sādhu'
 ti mahantena parivārena gantvā pallaṃke nisīdi. Tassa nisinnakāle
 amaccā ekaṃ dvipādehi vicaraṇa makkataṃ vatthuvijjācariyavesaṃ

gāhāpetvā vinicchayaṭṭhānaṃ netva 'deva ayaṃ puriso pitu mahārājassa kāle vatthuvijjācariyo paṇḍavijjo, antobhūmiyaṃ sattaratanatthāne dosaṃ passati, eten' eva gahitaṃ rājakulānaṃ gehatṭhānaṃ hoti, imaṃ devo saṃgaṇhitvā ṭhānantare ṭhāpetū' ti āhaṃsu.

PALI.

THIRD PASS PAPER.

Examiner—DR. BENIMADHAB BARUYA, M.A., D.LITT.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

GROUP A.

SANSKRIT GRAMMAR.

- Combine according to the rules of sandhi *any two* :—
(a) *Deva + ṛṣih*, (b) *Hari + aśvah*, (c) *Sarat + candrah*.
- Decline *only four* :—
(a) *Deva* in the 3rd case-ending plural.
(b) *Deva* in the 5th case-ending plural.
(c) *Sādhu* in the 1st case-ending plural.
(d) *Pitr* in the 6th case-ending plural.
(e) *Aśmad* in the 6th case-ending singular.
- Give the superlative forms of *any two* of *Vṛddha*, *Prasānya*, and *Alpa*.
- Give the forms for *any five* of the following :—
(a) *Bhū + lī* 3rd person singular.
(b) *Bhū + la* 3rd person dual.
(c) *Sthā + la* 3rd person singular.
(d) *Dā + la* 3rd person plural.
(e) *Sthā + lī* 3rd person singular.
(f) *As + la* 3rd person plural.
- Correct *any five* of the errors in the following :—
So tasya sakhāmm-āha, 'sakhā tisraḥ nadiyo atikramya ahaṃ Vaiśālīya antikam gataṃ. Tatra saṃvāsānām-upāsikānām purataḥ dvau bhikṣu dharmopadeśam kurvanti' ti.

GROUP B.

PĀLI GRAMMAR.

- Join according to the rules of sandhi *any four* :—
(a) *Cattāro + ime*, (b) *Yasmā + iha*, (c) *Mahā + isi*, (d) *Mukha + udakam*, (e) *Nīla uppalam*.

7. Decline *any four* :— 4
 (a) *Citta* in the 1st case-ending plural.
 (b) *Citta* in the 2nd case-ending plural.
 (c) *Muni* in the 6th case-ending singular.
 (d) *Hari* in the 7th case-ending singular.
 (e) *Brahma* in the 6th case-ending singular.
8. Conjugate :— 3
 (a) *Dā* in the present tense 1st person singular.
 (b) *Kar* in the aorist tense 1st person singular.
 (c) *Su* in the optative tense 1st person singular.
9. Illustrate the formation of the desiderative and of the present participle. 3
10. Explain and illustrate :— 3
Kāladdhānaṃ yoge ca. Maññatippayoge anāḍare appāṇini.

GROUP C.

Attempt FOUR questions only.

11. Show with apt examples from Sanskrit languages that 'Language is in a constant state of change.' 1
12. Classify the Pāli sounds according to their kind and place of articulation. 10
13. Explain *assimilation*, and illustrate it with *five* examples. 10
14. What is meant by the 'law of compensation'? Give examples. 10
15. How are languages classified morphologically? Describe *any two* of those classes. 10
16. Give instances from Aryan languages of nouns (or of adjectives) governing nouns in the objective case. 10

GROUP D.

17. Translate into Pāli :— 30
 Standing respectfully at one side, Mahā-Pajāpati the Gotamid spoke to the Blessed One as follows: 'Pray, Reverend Sir, let women retire from household life to the houseless one, under the doctrine and discipline announced by the Tathāgata.' 'Enough, O Gotamid, do not ask that.' Then she was sorrowful, sad, and tearful, and wept. And saluting the Blessed One, and keeping her right side towards him, she departed. The Blessed One departed on his wanderings, came to where Vesālī was, and dwelt in Great Wood, in Pagoda hall.

Now the venerable Ānanda saw Mahā-Pajāpati with her hair cut off, with swollen feet, and with a number of Sakka women, stand weeping outside in the entrance porch.

ALTERNATIVE GROUP A.

For Burman students only.

18. Apply the rules of sandhi :—(a) *Putha + eva*, (b) *Pum + lingaṃ*. 1
19. Decline *either* *Sakhā* or *Go*. 4
20. Give the superlative forms of *any two* :—*Vuddho*, *Bālho* *Yuvā*. 2
21. Conjugate the root *as* in the present tense. 2
22. Illustrate the uses of *Kālātipatti* and *Pañcamī* (of verbs). 3
23. Explain with examples :— 3

Viesane ca. Anāḍare ca.

ARABIC.

Paper-setters— $\left\{ \begin{array}{l} \text{SHAMS-UL-ULAMA ABU NASR MUHAMMAD} \\ \text{WAHEED, M.A.} \\ \text{ABDUL AZIZ.} \\ \text{MAULVI ABU TAHIR.} \end{array} \right.$
 (Pass and Honours)

FIRST HONOURS PAPER.

Examiner—MAULVI MD. ABU TAHIR.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. (a) Translate into English :—

25

(١) احاد ام سداس في احاد
لييلتنا المنروطة بالتناد
 كان بنات نعش في دجها
 خرائد سافرات في حداد
 افكر في معاقرة المنايا
وقود الخيل مشرفة الهوادي
 زعيما للقفز الخطى عزمي
 بسفك دم الحواضر و البوادي
 الى كم ذا التخلف و التواني
 و كم هذا التماذي في التمادي
 و شغل النفس عن طلب المعالي
 ببيع الشعر في سوق الكساد
 و ما ماضى الشباب بمسترد
 و لا يوم يمر بمستعاد

متى لحظت بياض الشيب عيني
فقد وجدته منها فى السواد

(ب) هينون لينون ايسار ذور كرم

سواس مكرمة ابناء ايسار
ان يسألوا الحق يعطوه وان خبروا
فى الجهد ادرك منهم طيب اخبار
و ان توددتهم لانوا و ان شهموا
كشفت اذمار شر غير اشرار
فيهم و منهم يعد المجد متلدا
و لا يعد نثا خزي و لا عار
لا يذلقون عن الفحشاء ان نطقوا
و لا يمارون ان ماروا باكثار
من تلق منهم تقل لاقيت سيدهم
مثل النجوم التى يسرى بها السارى

(b) Write notes on the underlined words of the above extracts. 7

(c) Give the etymology of بذاك نعتش and give another Arabic 5

name of the same constellation.

(d) Account for ال in the word السواد in the last line of the 3
extract (i)

2. Explain fully the following verses :—

15

و كم من عبرة اصبحت فيها
يلين لها الحديد و انت قاس
باى قوى تظنك ليس تبلى
و قد بليت على الزمن الرواسى

و ما كل الظنون تكون حقا
ولا كل الصواب على القياس
و كل مخيلة رفعت لعين
لها رجبان من طمع وياس
و في حسن السريرة كل انس
و في خبث السريرة كل باس
و لم يك منه حسدا و بغيا
لينجسوا منهما راسا براس
و ما شئ باخلق ان حراة
قليل من اخي ثقة مواس
و ما تنفك من دول تراها
تقل من انس في انس

3. Give a short account of *Mutanabbi's* life, commenting on his poetry—comparing it with ancient Bedouin poetry. (Answer in Arabic). 15

4. Re-write the following lines, giving vowel-signs :— 10

لكم فجج الدهر من والد و كم اكل الدهر من والده
و كم ترك الدهر من سيد ينو على قدم واحدة
و كم قد راينا فتى ماجدا تفرع في اسرة ماجدة
يشمص في الحرب بالدارعي و يطعم في ليلة البادرة
رماة الزمان بسهم الردى فاصبح في التلة الهامدة

5. Explain the following lines in Arabic :— 20

(a) وفاؤكما كالربع اشجاة طاسمه
بان تسعدا و الدمع اشغلا ساجمه

وما انا الا عاشق كل عاشق
 اعق خليليه الصفيين الائمة
 وقد يتزيا بالهوى غير اهله
 ويستصحب الانسان من لا يلائمه
 بليت بلى الاطلاع ان لم اقف بها
 وقوف شكيج ضاع فى الترب خاتما
 كئيبا توقانى العواذل فى الهوى
 كما يتوقى ريض الخيل حازمه

(b) اذا كان مدح فالنسيب المقدم
 اكل فصيح قال شعرا متيم
 لحب ابن عبد الله اولى فانه
 به يبدأ الذكر الجميل ويختتم
 اطعت الغوانى قبل مطمح ناظرى
 الى منظر يصغرن عنه ويعظم
 تعرض سيف الدولة الدهر كله
 يطبق فى اوصاله ويصمم
 فجاز له حتى على الشمس حكمه
 و بان له حتى على البدر ميسم

ARABIC.

SECOND HONOURS PAPER.

Examiner—A. F. HARLEY, Esq., M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Translate into English :—

16

حكى العارث بن همام قال كلفت مذميطت عنى التمام -
و نيطت بى العمائم - بان اغشى معان الادب - و انضى اليه
ركاب الطلب - لالعلق منه بما يكون لى زينة بين الانام -
و مزنة عند الاوام - و كنت لفرط اللهي باقتباسه - و الطمع فى
تقمص لباسه - اباحث كل من جل و قل - و استسقى الوبل
و الطل و اتعلل بعسى و لعل - فلما حللت حلوان - و قد بلوت
الاخوان و سبرت الاوزان و خبرت ما شان وزان - انفيت بها
ابا زيد السروجى يتقلب فى قواليب الانتساب - و يخبط
فى اساليب الاكتساب - فيدعى تارة انه من آل ساسان -
و يعتزى مرة الى اقبال غسان - و يبرز طورا فى شعار الشعراء -
و يلبس حينما كبر الكبراء - بيد انه مع تلون حاله - و تبين محاله -
يتحلى برواء و رواية - و مداراة و دراية - و بلاغة رائعة - و بديهة
مطابقة - و آداب بارعة - و قدم لاعلام العلوم فارعة - فكان لمحاسن
آلاته - يلبس على علاته - و لسعة روايته - يصبى الى رويته -
و لخلابة عارضته - يرغب عن معارضته و لعدوبة ايراده - يسعف
بمراده - فتعلقت باهدابه - لخصائص آدابه - و نافخت فى
مصافاته - لنفائس صفاته *

2. (a) Turn the above extract into your own simple Arabic. 12
 (b) Write historical notes on غسان and ماسان. 8
 (c) Give the geographical position of حلوان. 2
 (d) Point out the peculiarities of باب in the following words:— 2

تقصص اقتباس - استسقى - تحلى - معارضة *

(e) Derive the following:—

رواء - رواية - مداراة - دراية *

3. Translate one of the following into English:—

10

A.

قال ابو جعفر وانا ذاكر في كتابي هذا من ملوك كل زمان
 من ابتداء ربنا جل جلاله خلق خلقه الى حال قيامهم من
 انتهى اليها خبره ممن ابتداء الله تعالى بالائه و نعمه - فشكر
 نعمه من رسول له مرسل او ملك مسلط او خليفة مستخلف
 فزاده الى ما ابتداء به من نعمه في العاجل - نعماء و الى ما
 تفضل به عليه فضلا - و من اخر ذلك له منهم - وجعله له
 عنده ذخرا و من كفر منهم نعمه فسلبه ما ابتداء به من نعمه
 و عجل له نقمه - و من كفر منهم نعمه فمتعه بما انعم به عليه
 الى حين وفاته و هلاكه - مقرونا ذكر كل من انا ذاكرة منهم
 في كتابي هذا بذكر نعمائه *

B.

قال ابو الريحان الخوارزمي اذا فرضنا ان دائرة معدل النهار
 تقطع كرة الارض بنصفين يسمى احد النصفين جنوبا و الآخر
 شمالا - و اذا فرضنا دائرة تعبر على قطبي معدل النهار و تقطع
 الارض صار كرة الارض اربعة ارباع - ربعان جنوبيان و ربعان
 شماليان - فالربع الشمالي المكشوف يسمى ربعا مسكونا - و الربع

المسكون مشتمل على البحار و الجزائر و الانهار و الجبال و المغاور و البلدان و القرى على ان ما بقى منها تحت قطب الشمال قطعة غير مسكونة من افراط البرد و تراكم الثلوج - و هذا الربع المسكون قسموها سبعة اقسام - كل قسم يسمى اقليما *

4.

13

(قال له صاحبه وهو يحاوره) يجاوبه (اكفرت بالذى خلقك من تراب) لان آدم خلق منه (ثم من نطفة) منى (ثم سواك) عدلك و صيرك (رجلا ٥) *

What story is connected with this? Answer in Arabic.

5. Relate the story of ماجوج و ماجوج and Alexander as given in the Quran. 10

6. Explain any three of the following :—

12

- (a) الحمد لله الذى انزل على عبده الكتاب و لم يجعل له عوجا ٥ فيما لينذر باسا شديدا من لدنه *
- (b) و انا لجاعلون ما عليها صعيدا جرزا *
- (c) و ربطنا على قلوبهم ان قاموا فقالوا ربنا رب السموات و الارض لن ندعو من دونه الها لقد قلنا اذا شططا *
- (d) قال الذين غلبوا على امرهم لنتخذن عليهم مسجدا - سيقولون ثلاثة رابعهم كلبهم ويقولون خمسة سادسهم كلبهم رجما بالغيب و يقولون سبعة و ثامنهم كلبهم *
- (e) و يقولون يا ويلتنا مال هذا الكتاب لا يغادر صغيرة ولا كبيرة *

7 Give the substance of the following in your own Arabic :—

13

أصحا ام قد نهى ذكره ام قضى من لذة و طرة
ام تذكرت الشباب و ما ذكرك الشباب او عصه

إنها حرب رباعية مثلها اتى الفتى غيرة
 فسلا عمران او اسدا اذ اتت غدوا مع الزهرة
 فيلق فيها ابو كرب سبغ ابدانها ذفرة
 ثم قالوا من يؤم بها ابنى عوف ام النجرة
 بل بنى النجار ان لذا فيهم قتلى و ان ترة
 فتلقتهم مسائفة مدها كالغبيبة الفترة
 فيهم عمرو بن طلحة ملا الاله قومه عمرة
 سيدا سامى الملوك و من رام عمراً لا يكن قدرة

ARABIC.

THIRD HONOURS PAPER.

Examiner—SHAMS-UL-ULAMA ABU NASR MUHAMMAD WAHEED,
M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. 'Translate into English *any one* of the following:—

A.

قال ابراهيم النخعي اذا دخل احدكم بيتا فليجلس حيث 24
 اجلسه اهله- قال سعيد بن العاص ما مددت رجلى قط بين يدي
 جليسى و لا قمت حتى يقوم و قال ايضا لجليسى على ثلاث
 اذا دنا رحبت به و اذا جلس وسعت له و اذا حدث اقبلت
 عليه - و قال زياد اياك و صدور المجالس و ان صدرك صاحبها
 فانها مجلس • قلعة - و لان ادعى من بعد الى قرب احب
 الى من ان اقصى من قرب الى بعد - قال ابن المعتز

لا تسرع الى ارفع موضع فى المجلس فالموضع الذي تحط
اليه خير من الموضع الذي تحط منه *

قالت الحكماء رأس الادب كله حسن الفهم والتفهم
والاصغاء للمتكلم قال بعض الحكماء لابنه يا بنى تعلم حسن
الاستماع كما تتعلم حسن الحديث وليعلم الناس انك
احرص الناس على ان تسمع منك على ان تقول فاحذر
ان تسرع فى القول فيما يجب عنه الرجوع بالفعل - من
حسن الادب ان لا تغالب احدا على كلامه و اذا سئل غيرك
فلا تجب عنه و اذا حدث بك حديث فلا تنازعه اياه ولا تقتحم
عليه فيه و لا تره انك تعلمه *

بعث ملك الى عبد له : ما لك لا تخدمنى و انت
عبدى - فاجابه لو اعتبرت لعلمت انك عبد عبدى لانك
تتبع الهوى فانت تتبعه و انا املكه فهو عبدى *

B.

وقال القاضى ابوبكر بن العربى المالکى الامام العلامة
ليس لله تعالى خلق احسن من الانسان فان الله تعالى خلقه
حيا عالما قادرا متكلم سميعا بصيرا مدبرا حكيما - قال تعالى لقد
خلقنا الانسان فى احسن تقويم وهو اعتداله وتسوية اعضائه
لانه خلق كل شئ منكبا على وجهه و خلقه سويا - وله لسان
ذلق ينطق به ويد و اصابع يقبض بها - مؤدبا بالامر مهذبا بالتمييز -
يتناول مأكوله ومشروبه - و افتتح ابن بختيشوع الطبيب
النصرانى كتابه فى الحيوان بالانسان و قال انه اعدل الحيوان

مزاجا و اكمله افعالا و الطفه حسا و انفذه رأيا - فهو كالمملك
المسلط القاهر لسائر الخليقة و الأمر لها - و ذلك بما وهب الله
تعالى له من العقل الذى به يميز على كل الحيوان البهيمى
فهو بالحقيقة ملك العالم - و لذلك سماه قوم من الاقدمين
العالم الاصغر *

العقرب اخبت الحشرات تلدغ كل شئ حتى العجبر
و المدر و قيل فى ذلك *

رأيت على صخرة عقربا * و قد جعلت ضربها ديدنا
فقلت لها انها صخرة • و طبعك من طبعها اينما
فقلت صدقت و لكننى * اريد اعرفها من انا

2. Translate into English any two of the following :—

A.

يتحول الماء بقوة الحرارة الى بخار ثم الى ضباب - و اذا 23
دامت الحرارة تحول الضباب الى بخار غير منظور - فالبخار اذا
غير منظور و مرن - فاذا راقبنا ابريق ماء يغلى رأينا البخار خارجا
من منفذه و علة خروجه تمدد الماء بالحرارة حين استحالت الى
بخار فيشغل فراغا اعظم مما يشغله الماء - و كلما طالت مدة
الحرارة ازداد تمدد البخار * و قد دلت الامتحانات العلمية
على ان الماء المتحول بخارا بالحرارة تحت ضغط هواء عادى
يتمدد ١٧٢٨ مرة زيادة عن حجمه الاصلى - فالقيراط المكعب
يتمدد فى حاله البخارية حتى يشغل مساحة قدرها قدم
مكعبة - مثال ذلك انا اذا وضعنا على النار و عاء ماء مغطى

سمعنا حين سخونته ايزا وجيشانا ورأينا على سطحه فقايح
ثم يأخذ الغطاء يعتز ويرتج كان فى الرعاء شياً يدفعه الى فوق -
وما ذلك الا لان الاناء امتلأ بخارا فاخذ يرفع الغطاء ويطلب
الفرار *

B.

23 الاعصار هو زوبعة تجعل الماء عمودا قاعدته متصلة بالبحر
و رأسه متصل بالغيم - و سببه حدوث الزوبعة فوق البحر - فعند
ما تمس الريح اللولبية سطح الماء ترفع كثيرا من الزبد عن وجهه
الى مركزها فتدور وتجذب الماء بما فيه فيصعد عمودا فيتطاول
بسرعة وقد يعتز الى الامام والخلف ثم يلتف و يعلو الى ان
يمس السحاب فينتصب عمودا بينه وبين الماء * و الاعاصير
تحدث غالبا فى زمن الحر وقد يتدلى اثنان او ثلاثة منها
من سحابة واحدة وقد شوهد سبعة منها فى نصف ساعة -
و اعلم ان الاعصار باتصاله بالماء من اسفله قد يلف ويحمل
فى جوفه اخشابا و اسماك و ضفادع و حيوانات بحرية متنوعة *

C.

23 و يشترط للنجاح ان يكون للمرء غرض خاص من اغراض
الحياة يجعله ابدا نصب العين سواء كان ذلك صناعة او تجارة
او علما - اذ من الواضح ان القوة اذا تفرقت ضعفت و اذا
جمعت قويت - فلا بد من الدرس الواسع و تحصيل المعارف
العامة لان هذا يذب العقول و يزيدها قوة فى مباشرة الاعمال -
ولكن لابد من صرف القوى الى غرض واحد يختاره المرء
غير ان هذا الاختيار لا يكون دائما فى قوة الانسان بل كثيرا

ما يندفع اليه اضطرارا - ولكن عليه ان يتقن مهنته مهما كانت
ومهما عارضه الدهر - ومن اقوال الحكماء لا تدخل امرأ
لا تكون ماهرا فيه وقولهم لا تطلب سرعة العمل واطلب
تجويده - ثم اذا اختار امرء صناعة وجعلها غرض الحياة وتعلمها
حق العلم فعليه ان يلزمها بلا انقطاع لانه اذا قعد عنها او بدلها
بغيرها كانت النتيجة غالبا خيبة الامل *

و قل من جد فى امر يحاوله * واستعمل الفرق الا فاز بالظفر

3. Translate into Arabic, giving vowel-signs:—

A.

'Behold me,' said he, 'behold me charged with the cares of Govern- 18
ment. I am not the best among you; I need all your advice, and
all your help. If I do well, support me; if I mistake, counsel me.
To tell the truth to a person commissioned to rule is faithful allegi-
ance; to conceal it is treason. In my sight the powerful and the
weak are alike; and to both I wish to render justice. As I obey God
and the Prophet, obey me. If I neglect the laws of God and the Pro-
phet, I have no more right to your obedience.'

B.

He and his sons tilled the ground, or wove cloth to make clothes. 12
The little boys tended the cattle, and the women milked the cows
or spun thread, or did other work at home. In time of war the men
took up their swords, bows and arrows, and went out to fight. They
prayed to the gods to help them in the fight, and thanked the gods
for their aid when the fight was over.

ARABIC.

FOURTH HONOURS PAPER.

Examiner—MAULAVI MD. ABU TAHIR.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English, adding explanatory notes where necessary :— 20

(a) ابرق بدا من جانب الغور لامع

ام ارتفعت عن وجه سلمى البراق

انار الغضا ضاوت و سلمى هذي الغضا

ام عما حكته المدامع

نح ام عرف حاجر

بام القرى ام عطر عزة ضائع

الا ليت شعري هل سليمى مقيمة

بوادي الحمى حيث المتيم وال

و هل لعل الرعد الهتون بلعل

و هل جادها صوب من المزن هاعم

و هل اردن ماء العذيب و حاجر

جهارا و سر الليل بالصبح شائع

و هل قاعة الوعساء مخضرة الربى

و هل ما مضى فيه من العيش راجع

و هل برى نجد فتوضح مسند

اهيل النقا عما حوته الاضالع

لعل اصحابي بمكة يبردوا

بذكر سليمى ما تجن الاضالع

(b) قفا نبك من ذكرى حبيب و منزل
 بسقط اللوى بين الدخول فحومل
 فتوضع فالمقراة لم يعف رسمها
 لما نسجتها من جنوب و شمال
 ترى بعز الازام فى عرصاتها
 وقيعانها كانه حب فلفل
 كانى غداة البين يوم تحملوا
 لدى سمرات الحى ناقف حفظل
 وقوا بها صعبى على مطيهم
 يقولون لا تهلك اسى وتجمل
 وان شفائى عبوة مبرقة
 فهل عند رسم دارس من معول
 كدايك من ام الكويرث قبلها
 وجارتها ام الرباب بماسل
 اذا قامتا توضع المسك منهما
 يم صبا جاءت بري القرنفل
 دموع العين منى صباة
 على الفخر حتى بل دمعى محمل

2. Name the poets of both the preceding extracts, and give a short account of the poet of the last extract. (Answer in English). 10

3. Narrate the story of (دائرة الجبل) in English. 5

4. Explain only the allusions in the following lines :— 10

كانت مواعيد عرقوب لها مثلا
 وما مواعيدها الا الاباطيل

ان الرسول لفور يستأخاء به
 من سيفوف الله مسلول
 فى عصبة من قريش قال قائلهم
 ببطن مكة لما اسلموا زلوا
 شم العرائين ابطال لبوسهم
 من نسج داؤد فى النيجا سرايل

5. Explain fully the following lines:—

17

(a) عفت الديار محلها ومقامها

بمنى تابذ غولها فرجامها

فمدافع الريان عرى رسمها

خلقا كما ضمن الوحي سلامها

دمى تجرم بعد عهد انيسها

حجج خلون حلالها وحرامها

رزقت مرايبع النجم وصابها

ودق الرواعد جودها فرهامها

من كل سارية وغاد مدجن

وعشية متجاوب ارزامها

(b) فقد اتيت رسول الله معذرا

والعذر عند رسول الله مقبول

مهلا هداك الذى اعطاك نافلة الـ

قران فيها مواعظ وتفصيل

لا تأخذنى بأقوال الوشاة ولم
اذنب و ان كثرت فى الاقاريل
لقد اقوم مقاماً لو يقوم به
ارى واسمع ما قد اسمع الفيل

6. Write the context of the verses given below in Arabic prose:— 18

وقالوا شربت الاثم كلا وانما
شربت التي فى تركها عندى الاثم
هنيئاً لاهل الدير كم سكروا بها
وما شربوا منها ولكنهم هموا
وعندي منها نشوة قبل نشأتى
معى ابدا تبقى وان بلى العظم
عليك بها صرنا وان شئت مرجها
فعد لك عن ظلم الحبيب هو الظلم
وفى سكرة منها ولو عمر ساعة
ترى الدهر عبدا طائعا ولك الحكم
فلا عيش فى الدنيا لمن عاش صاحيا
ومن لم يمت سكر بها فاته الحزم
على نفسه فليبك من ضاع عمره
وليس له فيما نصيب ولا سهم

7. Translate into Arabic:—

After the conquest of Greece, the Romans put no bounds to their ambition. They became desirous of conquering the whole world, and turning their arms against every nation within their reach, subdued a great part of Europe, and at length invaded Asia. Here they were opposed by Mithridates, King of Pontus. He was a man of great abilities, and defeated the Romans in several engagements. The Greeks hated their Roman oppressors, and were induced to take part

20

with Mithridates. But he was at length defeated by a famous general, named Sylla, and the poor Greeks, now left to his mercy, were treated with the most cruel severity. Athens and Boeotia, in particular, excited his anger, and were, therefore, covered with desolation by the conqueror. Scarcely were these calamities over when this devoted country became the prey of some corsairs, or sea robbers, from Sicily. These pirates were very formidable, having no less than one thousand ships, and being in possession, at one time, of four hundred towns along the borders of the Mediterranean.

ARABIC.

FIFTH HONOURS PAPER.

Examiner—A. F. HARLEY, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English *either* A *or* B:—

8

A.

روى انه عليه الصلاة والسلام لما دعا بهذه الدعوات قيل له
عند كل كلمة فعلت وعنه عليه السلام انزل الله تعالى آيتين
من كنوز الجنة كتبهما الرحمن بيده قبل ان يخلق الخلق
بالفى سنة من قرأهما بعد العشاء الاخيرة اجزأته عن قيام
الليل وعنه عليه الصلاة والسلام من قرأ الآيتين من آخر سورة
البقرة فى ليلة كفتاه وهو يرد قول من استكره ان يقال سورة البقرة
وقال ينبغي ان يقال السورة التى تذكر فيها البقرة كما قال
عليه الصلاة والسلام السورة التى تذكر فيها البقرة فسطاط القرآن
فتعلموها فان تعلمها بركة وتركها حسرة ولن يستطيعها البطلة قيل يا
رسول الله وما البطلة قال السكرة *

B.

و لقوله عليه الصلاة والسلام انا ابن الذبيحين فاحدهما جده
اسماعيل و الاخر ابوه عبد الله فان جده عبد المطلب نذر ان يذبح
ولدا ان سهل الله له حفر زمزم و بلغ بنوه عشرة فلما سهل اقرع
فخرج السهم على عبد الله ففداه بمائة من الابل و لذلك سنت
الدية مائة و لان ذلك كان بمكة و كان قرنا الكبش معلقين بالكعبة
حتى احترقا معها فى ايام ابن الزبير و لم يكن اسحق ثمة و لان
البشارة باسحق كانت مقرونة بولادة يعقوب منه فلا يناسبها الامر
بذبحه مراهقا و ما روى انه عليه الصلاة والسلام سئل الى
النسب اشرف فقال يوسف صديق الله ابن يعقوب اسرائيل الله
ابن اسحق ذبيح الله ابن ابراهيم خليل الله فالصحيح انه قال
يوسف بن يعقوب بن اسحق ابن ابراهيم و الزوائد من الراوي *

2. (a) Quote from your memory the prayer referred to in the extract A, Question 1. 4

(b) Write a short note on زمزم. 5

(c) Give the exact meaning of the word اسرائيل الله. 3

3. (i) Explain after *Al-Baidawi* either (a) or (b) :- 10

(a) و الصفات صفا فالزاجرات زجراً فالتاليات ذكراً *

(b) رب السموات و الارض و ما بينهما رب المشارق *

(ii) Explain one of the following after *Al-Kashshaf* :- 5

(a) الكتاب الحكيم شدى و رحمة للمكسنيين *

(b) و اتبع سبيل من انا الى *

(iii) Give a brief account of لقمان as described by *Zamakhshari*. 10

4. (a) Expand the following :- 5

وعن النبى صلى الله عليه و سلم مفاتيح الغيب خمس
وتلا هذه الآية (و عذدة علم الساعة النج) و عن ابن عباس

رضى الله عنهما من ادعى علم هذه الخمسة فقد كذب اياكم
و الكهانة *

(b) Describe النبوة.

8

5. Translate into English *either* A or B :—

10

A.

و اما الذى للانبيااء فهو استعداد بالانسلاخ من البشرية الى
الملكية المحضة التى هى اعلى الروحانيات ويخرج هذا
الاستعداد فيهم متكررا فى حالات الوحي و هو عند ما يعرج
على المدارك البدئية ويقع فيها ما يقع من الادراك شبيها
بحال النجوم شبيها بيضا و ان كان حاله النجوم ادون منه بكثير فلاجل
هذا الشبه عبر الشارع عن الرؤيا بانها جزء من ستة و اربعين جزء
امن النبوة و فى رواية ثلاثة و اربعين و فى رواية سبعين و ليس
العدد فى جميعها مقصودا بالذات و انما المراد الكثرة فى
تفاوت هذه المراتب بدليل ذكر السبعين فى بعض طرقه
و هو للتكثير عند العرب و ما ذهب اليه بعضهم فى رواية
ستة و اربعين من ان الوحي كان فى مبتدئه بالرويا ستة اشهر
وهى نصف سنة و مدة النبوة كلها بمكة و المدينة ثلاث و عشرون
سنة فنصف السنة منها جزء من ستة و اربعين فكلام بعيد من
التحقيق *

B.

قال ابن اسحق و كان تبع و قومه اصحاب اوثلان يعبدونها
فتوجه الى مكة و هى طريقه الى اليمن حتى اذا كان بين
عسفلان و امج اتاه نفر من هذيل ابن مدركة بن الياس بن مضر
بن نزار بن معد فقالوا له ايها الملك الاندلك على بيت مال

دائر اغفله الملوك قبلك فيه اللؤلؤ و الزبرجد و الياقوت
و الذهب و الفضة قال بلى قالوا بيت بمكة يعبداه اهله
و يصلون عنده و انما اراد الهذيليون هلاكه بذلك لما عرفوا من
هلاك من ارادة من الملوك و بغى عنده فلما اجمع لما قالوا
ارسل الى الخبرين فسألتهما عن ذلك فقالا له ما اراد القوم الا
هلاكك و هلاك جندك ما نعلم بيتا لله اتخذه فى الارض
لنفسه غيره و لكن فعلت ما دعوك اليه لتهلكن و ليهلكن من
معك جميعا قال فماذا تامرانى ان اصنع اذا قدمت عليه قال
تصنع عنده ما يصنع اهله *

6. Define حقیقہ - معجاز - مرسل - استدلال - تجرید - ترشیح. 12

7. Translate into Arabic:—

20

Habit is called a second nature, and indeed it is so. When once we contract a habit it is almost impossible to give it up, and we regard it as a part of our nature. Therefore we should be very careful in forming a habit; unless we are very careful a habit quietly and gradually takes possession of us, and we cannot easily get rid of it.

ARABIC.

SIXTH HONOURS PAPER.

Examiner—SHAMS-UL-ULĀMA ABU NASR MD WAHEED, M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks

1. Answer *any three* of the following:—

30

- (a) Give an account of the early Arab conquest of Egypt.
- (b) Give an account of the revolt of the Kharijis and the Berbers.
- (c) Give the causes of the downfall of the Omayyad Dynasty.
- (d) Describe the Battle of Medina Sidonia and its immediate effect.
- (e) Describe briefly the character of Harun-ur-Rashid and his glorious reign.
- (f) Describe the intellectual developments of the Arabs under Mamun.
- (g) Give a description of Cordova under the Arabs.

2. Answer any four of the following :—

40

(a) Give a brief sketch of the life and work of—

- (i) 'Antarah ;
- (ii) Nahighah.

(b) Give a brief account of Pre-Islamic poetry and religion.

(c) Give the causes which led to corruptions in the tradition of the old poetry.

(d) Give a brief history of Arabic writing.

(e) Describe briefly the intellectual developments of the Arabs in Spain.

(f) Give the characteristics of the Omayyad literature.

(g) Write notes on—

- (i) Abu Nuwas ;
- (ii) Jarir ;
- (iii) Ibn Siná ;
- (iv) Al-Ghazáli ;
- (v) Ibn Rushd.

3.

A.

Answer any two of the following :—

14

(a) Define بحر - اصل - ركن - سبب ورتد - زحاف and give examples.

(b) Enumerate the various kinds of زحاف permissible in more than one ركن.

(c) Give examples of ثلم - جب - خرم - كشف.

(d) Quote from memory some lines of Arabic poetry written in بحر رمل , بحر كامل , بحر طويل , and scan them according to the standard measures of فعل.

Answer any two of the following :—

16

(a) Distinguish between (i) الحقيقة والمجاز , (ii) الاستعارة والمجاز , (iii) المجاز المفرد والمجاز المركب المرسل and (iii) المجاز المركب المرسل.

(b) Give illustrations of the following :—

(١) تسمية الشيء باسم جزئيه و عكسه *

(٢) تسمية الشيء باسم سببه او مسببه *

(٣) تسمية الشيء بما كان عليه *

(٤) تسمية الشيء بما يؤهل اليه *

(٥) تسمية الشيء باسم حاله *

(c) Name the kind of *مجاز* or *استعارة* used in each of the following:—

- (١) فبشرهم بعذاب اليم *
- (٢) فان تعافوا العدل و الايماننا * فان فى ايماننا نيرانا
- (٣) اخذنا باطراف الاحاديث بيضاء
و سالت باعناق المطى الاباطح
- (٤) لدى اسد شاكى السلاح *
- (٥) و يصعد حتى يظن الجبهر
بان له حاجة فى السماء

ARABIC.

FIRST PASS PAPER.

Examiner—MAULAVI MD. ABU TAHIR.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English :—

25

- (a) كانني في ديار قد خربت
وبالدموع الـ
فضعت لابل جرحت و اـ
دنيا رجالا عليك. قد كلبت
الموت حق و الدار فانيمة
و كل نفس تجزي بما كسبت
يا لك من جيفة مغفنة
لى امتناع لها اذا طلبت

(b) انساک معیاک المماتا
 فطلبت فی الدنیا الثباتا
 اوثقت فی الدنیا وانت
 ترى جماعتها شتاتا
 وعزمت منك على العیة
 وطولها عزمابتاتا
 یا من ارى ابویه فیمن
 قد رای کانا فماتا
 هل فیهما لك عبرة
 ام خلت ان لك انفلاتا

(c) الا رب ذی اجل قد حضر
 کثیر التمنی قلیل الحذر
 اذا هز فی المشی اعطاه
 تعرفت من منکیه البطر
 یؤمل اکثر من عمرة
 ویزداد یوما بیوم اشـر
 یمسى ویصبح فی نفسه
 کریم المساعی عظیم الحظر

(d) الآهی لا تعذبنی فانی
 مقرر بالذی قد کان منی
 وما لی حيلة الا رجائی
 وعفوک ان عفوت وحسن ظنی

فكم من زلة لى فى البرايا
وانت على ذو فضل ومن
اذا فكرت فى قدمى عليها
عضضت اناملى و قرعت سنى

(٥) خير من الساعات فى * فى القصور العاليه
تعقبها عقوبة * تصلى بنار حاميه
فهذه وصيتى * مخبره بحاليه
طوبى لمن يسمعها * تلك لعمري كانيه
فاسمع لنصح مشفق * يدعى ابا العنايه

(٦) من الجاذر فى زى الاعارب
حمر الحاي و المطايا و الجلابيب
ان كنت تسأل شكا فى معارفها
فمن بلاك بتسديد و تعذيب
متجزنى بضى بى بعدها بقر
تجزى دموى مسكوبا بمسكوب
سواثر بما سارت هواجها
منيعه بين مطعون و مضروب

(٧) يا ابنة عبد الله و ابنة مالك
ويا ابنة ذى البردين و الفرس الورد
اذا ما صنعت الزاد فالتمسى له
اكيلا فانى لست اكله وحدى

اخا طارق او جار بيت فانضى
 اخاف مذمات الاحاديث من بعدى
 وانى لعبد الضيف ما دام ثاوبا
 وما فى الاتلك من شيمتة العبد

(h) يام كدراء مهلا لا تلومينى
 انى كريم وان اللوم يوذيفنى
 فان بخلت فان البخل مشترك
 وان اجد اعط عفوا غير ممنون
 ليست بباكية ابلى اذا فقدت
 صوتى ولا وارثى فى الحى يبيكنى
 بنى البنات لذا مجددا و مكرمة
 لا كالبناء من الاجر والطين

2. Explain the following lines in Arabic:—

15

اين ازمعت ايذا الهمام * نحن نبت الربى وانت الغمام
 نحن من ضايق الزمان له فيك و خائنه قربك الايام
 فى سبيل العلى قتالك والسلم وهذا المقام و الاجزاء
 ليت انا اذا ارتعلت لك الخيل و انا اذا نزلت خيام
 كل يوم لك ارتحال جديد * و مسير للمجد فيه مقام

3. Re-write the above extract (Question 2) giving vowel-signs.

10

4. Scan the line quoted below and name the metre:—

5

حياتك انفس تعد فكلما

مضى نفس منها نقصت بها جزاء

5. Explain in English, with historical allusion:—

15

ارى الدنيا لمن هى فى يديه عذابا كلما كثرت لديه
تنفي المكرمين لها بصغر و تكرم كل من هانت عليه
اذا استغثت عن شئى فدهه و خذ ما انت محتاج اليه

6. Give the singular or the plural, as the case may be, of the following words:—

سن - مطايا - برايا - حياض - بزا - حوراء - همام - ربي - ديار - هبرة
نار - شهمة - جار - طارق - برد

7. Give the تليل of - طاب - ليزد - هائل - اخترت - ارى - سارت - 10

إصابة - ق - دع - خانت - يدعى

8. Analyse:—

10

هزمت مكارمه المكارم كلها
حتى كان المكررات قبائل
طول التعاشرين الناس مملول
ما لابن ادم ان فتشت معقول
للمرء الوان دنيا رغبة و هوى
و عقله ابدما ما عاش مدخول

ARABIC.

SECOND PASS PAPER.

Examiner—A. F. HARLEY, ESQ., M.A.

Candidates are required to give their answers in their own words
as far as practicable.

The figures in the margin indicate full marks.

1. (a) Explain fully with allusions:—

16

فلما لم يسعف بالاقالة و لا اعفي عن المقالة - لبيت دعوته
تلبية المطيع و بذلت فى مطاوعته جهد المستطيع و انشأت

على ما اعانيه من قريحة جامدة و فطنة خامدة و روية ناضبه
و هموم ناصبة خمسين مقامة تحتوى على جد القول و هزلة
و رقيق اللفظ و جزله و غرر البيان و درره و ملح الادب و نوادره
الى ما وشكتها به من الايات و محاسن الكفايات و رصعته
فيها من الامثال العربية و اللطائف الادبية و الاحاجى النحوية
و الفتاوى اللغوية و الرسائل المبتكرة و الخطب المكبرة
و المواعظ المبكية و الاضاحيك الملهية مما امليت جميعه على
لسان ابى زيد السروجى و اسندت روايته الى الكارث بن همام
البصري و ما قصدت بالاحماض فيه الا تنشيط قارئيه و تكثير
سواد طالبيه و لم اودعه من الاشعار الاجنبية الا بيتين فذنين
اسست عليهما بنية المقامة الحلوانية و اخرين توءمين ضمنتما
خواتم المقامة الكرجية و ما عدا ذلك فخطرتى ابو عذرة
و مقتضب حلوة و مرة و هذا مع اعترافى بان البديع
رحمه الله سباق غايات و صاحب آيات و ان المتصدي بعده
لانشاء مقامة و لو اوتى بلاغة قدامة لا يغتفر الا من فضالته و لا
يسرى ذلك المسرى الا بدالته - والله در القائل * بيت *

فلو قبل مبكها بكيت صباة
بسعدى شغيت النفس قبل التقدم
ولكن بكت قبلى فبيج لي البكا
بكها فقلت الفضل للمتقدم

(b) Turn the couplet

و لكن بكت قبلى النح

into prose order.

(c) Give the singulars of the following words:—

2

در - احاجى - معاسن - مواظ - اضاحيلك - غر

(d) Comment upon الله در القائل

3

2. Translate any one of the following:—

12

A.

اذ لم نقصد بكتابتنا هذا قصد الاحتجاج لذلك بل لما ذكرنا من تاريخ الملوك الماضين وجمل من اخبارهم وازمان الرسل والانبيا و مقادير اعمارهم و ايام الخلفاء السالفين وبعض سيرهم ومبالغ ولاياتهم والكائن الذى كان من الاحداث فى اعصارهم - ثم انا متبع اخر ذلك كله (انشاء الله و ايد منه بعون وقوة) ذكر صحابة نبينا محمد صلعم واسمائهم وكناهم ومبالغ انسابهم ومبالغ اعمارهم ووقت وفاة كل انسان منهم والموضع الذى كانت به وفاته ثم متبعهم ذكر من كان بعدهم من التابعين ثم باحسان على نحو ما شرطنا من ذكرهم ثم ملحق بهم ذكر من كان بعدهم من الخلف لهم كذلك وزائد فى امورهم الابانة عن حمدت منهم روايته و نقلت اخباره و من رفضت منهم روايته و نبذت اخباره و من وهن نقله وضعف خبره والسبب الذى من اجله نبذ من نبذ منهم خبره والعلة التى من اجلها وهن من وهن نقله والى الله عز وجل انا راغب فى العون على ما اقصده و انويه - و التوفيق لما التمسه و ابغيه فانه ولى الحول والقوة صلى الله على محمد نبيه و اله و سلم تسليما *

B.

و للبخار عمل يذكر فى الاسفار البرية - فيكمل الانسان على جذاحه بسرعة وراحة يعجب منهما - و قد احيى البخار مدنا

23

و امصارا - و حاك للبشر المنسوجات - و وفر البضائع فهبطت
 اثمانها - و نقلها برا و بحرا بلجرة رخيصة - و وصل بعض البلاد
 ببعضها - و اراح الناس من اتعاب لا حد لها و لا نهاية - و وزع
 فى الوقت نفسه الاشغال و الاعمال على جموع و جماهير
 تعد بالملايين - تلك قوة لا يعترها الكلال فتدوم فى العمل ليلا
 و نهارا اذا غذيت بالوقيد - و تقوم بواجباتها قياما دقيقا - و قد
 باتت الالة البخارية مسعفة الانسان و معيخته - و فضلا عن
 ذلك لا تنفك تعلمه دروسا فى الصناعة و العلم و المواظبة -
 فلا بدع اذا قلنا ان البخار رقى بالعالم المتمدن الى ذروة المجد
 و الفضل *

C.

23

السماك من خلق الماء و هو انواع كثيرة و منه كبار و ما لا
 يدركه الطرف لصغره - و كله يابى الماء و يستنشقه كما يستنشق
 بنو آدم و حيوان البر الهواء - الا ان حيوان البر يستنشق الهواء
 بالانف و يصل بذلك الى قصبة الرئة و السمك يستنشق
 باصداعه فيقوم له الماء في تولد الروح الحيوانى فى قلبه مقام
 الهواء - و انما استغنى عن الهواء فى اقامة الحياة و لم نستغن
 نحن و ما اشبهنا من الحيوان عنه لانه من عالم الماء و نحن
 من عالم الارض - و صغار السمك تحتس من كبراه و لذلك
 تطلب ماء الشطوط و الماء القليل الذى لا يحمل الكبير - و هو
 شديد الحركة لان قوته المحركة للارادة تجرى فى مسلك واحد
 لا ينقسم فى عضو خاص - و هذا بعينه موجود فى الحيات -
 و من اصنافه ما هو على شكل الحيات و غير ذلك *

3. Translate into Arabic:—

A.

One day a tiger was walking near a well. His feet slipped and he fell into the well. He tried very hard but could not get out. A merchant came to the well and wanted to draw water. The tiger saw him and said, 'Please help me to get out.' 'How can I help you?' asked the merchant. 'Let down your rope and I will catch it and you can pull me up.' So the tiger came out of the well and wanted to eat him up. 'What!' said the merchant 'I saved your life, and now you want to eat me up!'

B.

He was not a learned man himself. For many years he could neither read nor write, for his cruel uncle had not taught him. But he was very fond of books. He had a large library with more than five thousand books in it. He was very fond of painting and had a great many pictures. He loved to hear good music and poetry.

ARABIC.

THIRD PASS PAPER.

Examiner—SHAMS-UL-ULMA ABU NASR MD. WAHEED, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English either of the following:—

A.

سخط كسرى على بزرجمهر فحبسه فى بيت مظلم و امر ان
يصفد بالحديد - فبقى اياما على تلك الحال فارسل اليه
من يسأله عن حاله - فاذا هو مشروح الصدر مطمئن النفس
فقالوا له انت فى هذه الحال من الضيق و نراك نائم البال -
فقال اصطنعت ستة اخلاط و عجزتها و استعملتها فى التى
ايقنتى على ما ترون - قالوا صف لنا هذه الاخلاط لعلنا ننتفع
بها عند البلوى - فقال نعم - اما الخلط الاول فالثقة بالله عز وجل -

و اما الثانى فكل ما شاء الله كائن - اما الثالث فالصبر خير
 ما استعمله الممتحن - و اما الرابع فاذا لم اصبر فما ذا اصنع
 و لا اعين نفسى بالجزع - و اما الخامس فقد يكون اشد مما
 انا فيه - و اما السادس فمن ساعة الى ساعة فرج - فبلغ ما قاله
 كسرى - فاطلقه و اعزة *

من كلام الحكماء لا تكن ممن يرى القذى فى عين اخيه
 و لا يرى الجذع المعترض فى حلق نفسه *

B.

24

قيل انكسرت سفينة فغرق ملاحوها الا واحدا دفعته الامواج
 الى الساحل فسار الى داخل مغارة و جلس فيها قلقا و اذا
 باسد قد دخل عليه فاعتسى الرجل الخوف الشديد و لا سيما
 عند ما اخذ الاسد يمسه بيده كانه يذببه الى شئ فينظر و اذا به
 قد رفع يده متألما فامسكها و اذا بها شوكه فنزعها فحفظ له الاسد
 هذا الصنيع و صار يجئ اليه بالطعام الى ان قدر الله رجوع
 الرجل الى وطنه - و بعد عشر سنوات حكم عليه بمبارزة الوحوش
 لتهمة وقعت عليه و كانوا يعتقدون انه اذا نجا من مبارزة السبع
 كان بريئا - فلما صار الرجل فى ساحة المبارزة و الناس حوله
 ينتظرون ما سيحل به من الويل اطلق الاسد من قفصه فأتى
 اليه مبصبصا بذنبه و اخذ يلعبه و يشمه و لم يؤذ - فتفرسه فاذا
 هو الاسد الذى نزع الشوكه من كفه *

قالت الحكماء يدرك بالرفق ما لا يدرك بالعنف الا قهى
 ان الماء على لينه يقطع الحجر على شدته *

2. Translate into English any two of the following:—

A.

23 قد فرى البعض يتفازعون و يحتالون على كسب المال لانفاقه
فى طعامهم و كسوتهم - فكسرة و بصلة باستراح خير من دجاجة
محشوة بصياح - و من الناس من يستدين المال و يستعير
الامتعة من صديق او جار - فذلك مكروه - و قد قيل الحلق
بالفلس و لا من الناس - و انظر فى العواقب دليل الفطنة -
فان افهم الناس من نظر فى العواقب - و اذا وقع خلاف بين
اثنين فليبادرا الى كشف الصدور و العتاب صابون القلب -
و مسألة الجميع واجبة لا سيما الاقرباء لان الف عدو خارج الدار
و لا عدو داخلها - و الحذر كل الحذر من الغضب فان اوله
جنون و آخره ندامة - و الزم الاحسان الى قريبك و لكن فليكن
عطاؤك مع البشاشة لانها عطية ثانية - و اصبر فى كل نائبة لان
الصبر مقرون بالفرج و اذكر الله فى جميع احوالك لان القلوب
تطمئن بذكره *

B.

اما المعادن فالذهب لا يتكون الا فى البرارى الرملة
و الجبال الرخوة - و الفضة و النحاس و الرصاص و الحديد
لا يتكون الا فى الاحجار المختلطة بالتراب اللين و الكبريت
لا يتكون الا فى الاراضى النارية - و الزئبق لا يتكون
الا فى الاراضى المائية و الاملاح لا تنعقد الا فى الاراضى
السبخة و الشبوب و الزاجات لا تتكون الا فى التراب
العفص - و القار و النفط لا يتكون الا فى الاراضى الدهنة -
اما تولد الاحجار التى لها خواص فلا يعلم معانها و سببها

الا الله تعالى - و اما الذبابت فان النخل و الموز لا
 ينبتان الا بالبلاد الحارة و كذلك الاترج و النارنج و الرمان
 و الليمون و اما الجوز و اللوز و الفستق لا ينبت الا بالبلاد
 الباردة و القصب على شطوط الانهار و كذا الدلب و المغيلا
 بالاراضى الصلبة و البرارى القفار و القرنفل لا ينبت الا بجزيرة
 ارض الهند و النارجيل و الغفل و الزنجبيل لا ينبت الا بالهند
 و كذلك الساج و الابنوس و الورس لا ينبت الا باليمن
 و الزعفران بارض الجبال بروزراورد و قصب الذريرة بارض نهاوند
 و الترنجيبين يقع على شوك بخراسان *

3. Explain clearly (you must not try more than *three* of the follow- 20
 ing):—

(a) ام حسبت ان اصحاب الكهف و الرقيم كانوا من اياتنا
 عجبا *

(b) ترى الشمس اذا طلعت تزاور عن كهفهم ذات اليمين
 و اذا غربت تقرضهم ذات الشمال و هم فى فجوة منه ذلك
 من آيات الله *

(c) قل انما انا بشر، مثلكم يوحى الى انما الهكم اله واحد
 فمن كان يرجو لقاء ربه فليعمل عملاً صالحاً و لا يشرك بعبادة ربه
 احدا *

(d) تبا له من "خادع مملوق

اصفر ذى وجهين كالمنافق

يبدو برصقين لعين الرامق

زينة معشوق و لون عاشق

و حبه عند ذرى الحقائق
يدعو الى ارتكاب سخط الخالق
لولا لم تقطع يمين سارق
ولا بدت مظلمة من فاسق
واها لمن يقذفه من حالق
و من اذا نالجا نجوى الوامق
قال له قول المصق الصادق
لا زامى فى وملك لى ففارق

4. Describe جابر or ذات العماد. 18

5. Expand the following:— 10

انا جعلنا ما على الارض زينة لها لنبلوهم ايهما احسن عملا *
و لبثوا فى كهفهم ثلاثمائة سنين وازدادوا تسعا *

6. State the حدوث الاوقات و الازمان و الليل و النهار as described in 15
your text.

PERSIAN.

Paper-setters— { Z. R. Z. SUHRAWARDY, ESQ., M.A., B.L.
(Pass and { AGA MD. KAZIM SHIRAZI.
Honours) { KHAN BAHADUR MAULAVI MD. IBRAHIM, B.A.

FIRST HONOURS PAPER.

Examiner—KHAN BAHADUR MAULAVI MD. IBRAHIM, B.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Translate into English and explain:—

(a) صبحدم چون كله بندوق آه دود آسای من 12
چون شفق در خون نشیند چشم شب پیمای من

مجلس غم ساخت ست و من چو بید سوخته
تا بمن راق کند مژگان می پالای من
رنگ بازیچه است کار گنبد نارنج رنگ
چند جوشم کز بروم نگذرد صفرای من
تیرباران سحر دارم سپر چون نفکند
این کهن گرگ خشن بارانی از غوغای من
این خماین گون که چون ریم آهن پالود و سوخت
شد سکاھن پوششش از دود دل دروای من
روی خاک آلود من چون کاه پر دیوار حبس
از رخم که گل کند اشک زمین اندای من
مار دیدی در گیا پیچان کنون در غار غم
مار بین پیچیده در ساق گیا آسای من
ازدها بین حلقه گشته خفته زیر دامضم
زان نجذبم ترسم اگه گردد ازدهای من

(b) Annotate, and explain the simile in the fifth and sixth verses. 10

2. Explain in Persian :—

(a) 15
مکن بر نعمت حق ناسپاسی
که تو حق را بنور حق شناسی
جز او معروف و عارف نیست دریاب
و لیکمی خاک می یابد ز خور تاب
عجب نبود که دارد ذره امید
هوای تاب مهر و نور خورشید
بیاد آور مقام حال فطرت
کز انجا باز دانی اصل فطرت

الست بریکم ایزد چرا گفت
 که بود آخر که آن ساعت بلی گفت
 در آن روزی که گلهای می سرشتند
 بدل در قبضه ایمان نوشتند
 اگر آن نامه را یکره نخوانی
 هر آن چیزی که میخواهی بدانی
 تو بستی عقد عهد بندگی دوش
 ولی کردی به نادانی فراموش
 کلام حق بدان گشتست نزل
 که تا یادت دهد آن عهد ادل
 اگر تو دیده حق را باغاز
 در اینجا هم توانی دیدنش بر
 مفاتش را ببین امروز اینجا
 که تا دانش توانی دید فردا

(b) Give in Persian the substance of the تمثیل employed to illustrate the above. 6

3. Explain the following:— 8

آنچه من بینم به بیداری نه بیند کس به خواب
 زاکه در یک حال هم در راحتم هم در عزاب
 گاه گریم چون صراحی گاه خندم چون قدح
 گاه بالم چون منویر گاه نالم چون رباب
 بر بحال من یکے بنگر بچشم اعتبار
 تا شوی اگه که ضد از ضد ندارد اجتناب

گریم و در گریه من زدها بیفی نهان
 خندم و برخنده من گریها یابی حجاب
 زان همی گریم که جان از کام دل شد نا امید
 زان همی خندم که دل بر کام دل شد کامیاب
 موکب عباس شاهی شد بری از خاوران
 شد محمد شه مهین فرزند او نایب مهاب
 ان سریر مجد و شوکت را همایون یار شد
 ان سپهر قدر و مکنت را فروزان ماهتاب
 مر مرا از طلعت این ماه بدر دل خرمی
 مر مرا از هجرت ان شاه در جان پیچ و تاب

4. Annotate :—

(a) تعالی الله چه دولت دارم امشب
 که آمد ناگهان دلدارم امشب
 چو دیدم روی خویش سجده کردم
 بحمد الله نگو کردارم امشب
 نهال عیشم از وصلش برآورد
 ز بخت خویش برخوردارم امشب
 کشد نقش انا الحق بر زمین خون
 چو منصور ارکشی بردارم امشب
 برات لیلة القدری بدستم
 رسید از طالع بیدارم امشب
 بران عزم که گر خود میروید سر
 که سرپوش از طبق بردارم امشب

تو صاحب نعمتی من مستحقم
 زکات حسن ده حقدارم امشب
 همی ترسم که حافظ محو گردد
 ازین شوری که در سردارم امشب

- (b) Explain the allusions in the fourth and fifth verses. 8
 5. (a) State the بحر and scan the first verse of each of the above 8
 poetical extracts.
 (b) Illustrate with special reference to extract 1 (a) the difference 5
 between قافیہ and ردیف.
 6. (a) Write in Persian a short life of خاقانی. 10
 (b) خاقانی and قاکانی are both Qasida-writers. Compare and 10
 state the distinctive features of the writings of each.

PERSIAN.

SECOND HONOURS PAPER.

Examiner—MAULAVI MD. IRFAN, M.A. .

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks.

1. Render the following extracts into Persian:—

9

اَلْهٰكُمُ التَّكَاثُرُ حَتّٰى زُرْتُمُ الْمَقَابِرَ ۚ كَلَّا سَوْفَ تَعْلَمُوْنَ ثُمَّ كَلَّا
 سَوْفَ تَعْلَمُوْنَ كَلَّا لَوْ تَعْلَمُوْنَ عِلْمَ الْيَقِيْنِ لَتَرَوُنَّ الْجَحِيْمَ ثُمَّ لَتَرَوُنَّهَا
 عَيْنَ الْيَقِيْنِ ثُمَّ لَتَسْأَلُنَّ يَوْمَئِذٍ النَّعِيْمَ - وَيَلُكُلُ لِكُلِّ هُمْزَةٍ
 لُّمَزَةً ۚ الَّذِى جَمَعَ مَا لَا رَعْدَةَ يَحْسَبُ اَنْ مَّالَهُ اُخْلَدَةُ ۚ كَلَّا
 لَيَذْبَدُنَّ فِى الْبُحْطَمَةِ ۚ وَمَا اَدْرَاكَ مَا الْبُحْطَمَةُ ۚ نَارُ اللّٰهِ الْمُوقَدَةُ
 اَلَّتِى تَطَّلُعُ عَلَى الْاَنْفَادَةِ اِنَّهَا عَلَيْهِمْ مُّوَصَّدَةٌ ۚ فِى عَمَدٍ مُمَدَّدَةٍ *

2. State the circumstances under which the above Surahs were revealed. Answer in Persian. 10

3. (a) What parts of speech are **وَيْلٌ** and **بَوْمٌ** - **كَلَامٌ** ? 6

(b) Note on **عَيْنِ الْيَقِينِ** and **عِلْمِ الْيَقِينِ**. 9

(c) Give the root and formation of **مَا اِدْرَاكَ** and **اِخْلَصَ** - **لَتَرَوُنَّ**. 3

4. Paraphrase in Persian :— 8

فعند ذلك، امر الشيخ غلامه باحضار انقاضى و الشهود -
فاحضروهم - و زوجتى ابنته - و عمل وليمة عظيمة و فرحا
كبيرا - و ادخلنى عليها - فرأيتها فى غاية الحسن و الجمال
بقدر و اعتدال - و عليها شئى كثير من انواع الحلى و الحلل
و المعادن و المصاغ و العقود و الجواهر الثمينة التى قيمتها الوف
الالوف من الذهب و لا يقدر احد على ثمنها *

5. (a) Derive the word **الشهود**, and give its root meaning. 2

(b) What is the different between **الحسن** and **الجمال** ? 2

(c) What part of speech is **المصاغ** ? 2

6. Translate any one of the following extracts into English :— 8

A.

آگاه دلان دیده‌ور و دوربینان ژرف نگاه را چرا گویم - ظاهر
پرستان معامله فهم نیکو منى شناسند - که هرگاه منتسبان این
دولت ابد قرین را به لحض انتساب چه کشایشها که کشایند
مشکلات در پیش همت طلبگار ایشان نمى آرد (خصوصا بآن
ارتباط عقیدت مندى پیرایه سعادت ایشان شود) خاصه آن گروه
بخت مند (که به مراتب اخلاص این خدیو آفاق سربلند
باشند) چگونه در مطالب والا و مقاصد بزرگ کام روا
مى گردند - پس در هر کارى (که این بزرگ ساخته آلهى به

نفس نفیس همت بندد) هر آینده حصول آن مقاصد بی نقاب
توقف جلوۀ ظهور دهد - و روزی چند (که صورت تاخیر و تسویف
راه می یابد) همانا حکمت بالغۀ ایزدی چنان اقتضا می کند:
که کتابۀ مدارج اخلاص مخلصان و مراتب خدمت گذاری
هر کدام بر پیش طاق عیان نگارش یابد - و زنگ زدای جواهر
استعدادات شده سبب تربیت خدیو جهان مردم را بر عالمیان
پدید آید *

B.

هنگامیکه مخبر صادق صبح بفرخوای رَ الصُّبْحِ اِذَا تَدَفَّسَ
عالمیان را از قدرت کاملۀ حضرت آفریدگار تعالی شانه خبر داد -
و جمازۀ سوار سریع السیر گردون بمودای اَللّٰهُ نُوْرُ السَّمٰوٰتِ وَالْاَرْضِ
در اظهار احوال جهانیان به تقریر واضح لب کشاد - خبر رسید که
جمعی از متحصنان شقاوت آثار چون دانه های انار از برج
حصار بیرون آمده - کار به خون ریزی می رسانند - و به تدارک
سرخ روئی درودان جان شیرین قدم ثبات افشوده - مستحفظان
دمدمه را به مقتضای فَدَمَدَمَ عَلَيْهِمْ رَبِّهِمْ بِدَنِيْهِمْ فَسَوْهَا شَرِيَتْ
مرگ می چشاند *

10 - بخت مذد - اید قرین 7. (a) Comment on the compounds
پیش طاق - کتابۀ مدارج اخلاص - نقاب توقف - نفس نفیس - خدیو آفاق
شریّت مرگ and قدم ثبات - جان شیرین.

4 (b) What parts of speech are **هَمَانَا** and **هَر آئِنْدَه** - **پیداوایه** - **خصوصاً**

6 (c) Give **مَخْتَالٌ** - **نُوْتَنی** - **نَوَاصِرَا** - **الْمَوْرِيَّاتِ** of باب and **مَادَّة** - **صِبْغَة**
سَارِعُوا and **قَسَتْ**.

5 (d) Parse the verse **فَدَمَدَمَ عَلَيْهِمْ رَبِّهِمْ بِدَنِيْهِمْ فَسَوْهَا**.

(e) What kind of واو is in **وَالصَّبْحُ إِذَا تَنَفَّسَ**? 3

(f) Give the صیغه of **کاشتن** - **کاستن** - **خاستن** - **خواستن**. 6
تاختن and **آختن**.

8. Give, in Persian, a brief account of— 10

وقایع ایام محاصره قلعه حیدرآباد مسمی به گلکندۀ تاریخ
 چهاردهم شهر رجب سنه ۳۵ جلوس شاه اورنگ زیب عالمگیر.

PERSIAN.

THIRD HONOURS PAPER.

Examiner—MAULAVI MD. ABU TAHIR.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English:—

A.

باتفاق شوهرم ته شمع جسته و روشن کرده بسردابه که از آنجا 10
 ناله‌ای حزین پیوسته بگوش ما می‌خورد رفتیم من برخود حتم
 کرده بودم که هرگاه فرصتی دست دهد بانجا رفته اگر از آن
 بیچارگان کسی را حشاشه باقی باشد پرستاری کنم خلاصه وارد
 زمین شدیم پای ما برطوبتی لزج برخورد و من لغزیده نزدیک
 بود بر زمین بیفتم دست خود را بدیوار گرفتم بر دیوار هم
 احساس رطوبت غلیظی کردم دست نزدیک چراغ آورده دیدم
 خون است ملتفت شدم که رطوبت زمین هم از خون
 مقتولین است در یک گوشه سردابه یک خرمی از کله
 و بدن و جوارح مقطوعه انسان یافتم که هنوز کلیه ابدان سرد

نشده و خون از اعضای بریده جاری بود و قلبشان می طپید و ناله ضعیفی از آنها بگوش ما میرسید ما آنها را که حشاشه داشتند و در حال جان کندن بودند از مرده ها سوا کرده در زمینی همواری خوابانیدیم که اقل در نفس آخر در رنج و تعب نبوده براحات بمیرند *

B.

12

یکی از ابواب گنج خانه اخلاق حمیده که ارباب تمیز را تحصیل اقتناع او بمقتاح اهتمام ضرور و از مسبت خوردن است که باید بنحوی از (مویه بفعل آید که پسندیده طبایع خردمندان افتاده غذائیکه از خوان عنایت ایزد در الافصال تفرول می نمایند گوارا شده از حلاوت لذات ثمرات موابد و نعمتهای سفره جود ایزد واجب الوجود بهره مند و کامیاب گردند زیرا که اگر کسی ذایقه استدراک حلاوت لقمه از مواید عقل و شعور نموده باشد خواهد که از شربت گوارای پیروی احکام ربانی و قواعد سنن رسالت پناهی کامیاب گردد می تواند شد که باندک ایستاده گی خاتم این درجات عالیه را بانگشت احوال خود موافق ساخته در سلک ارباب سعادت انتظام یابد از جمله سنتهای مؤکده که تیره گی خاطرها بنور مشاعل فیوضات بر افروزند یکی آن است که چون بر گذار سفره و خوانی نشیند اول باید که دست بشویند و دست را بدستمال خشک نکنند و بگفتن بسم الله الرحمن الرحیم که کلید خزانه ادراک جمیع برکات و فیوضات است مبادرت کرده شروع در خوردن نمایند *

2. Translate any one of the following extracts into English :—

28

A.

جهان بر آب نهاده است و زندگی بر باد
 غلام همت آنم که دل بر رو نهاده
 جهان نماند و خرم روان آدمی
 که باز ماند از در جهان بنیکی یاد
 سرای دولت باقی نعیم آخر تست
 زمین سخت نگه کن چومی نهی بنیاد
 کدام عیش درین بوستان باده اجل
 همی بر آورد از بیخ قامت شمشاد
 حیات عاریتی خانه ایست در ده سیل
 چراغ عمر نهاده است بر دریچه باد
 بسی بر آید و بیمه فرو شود خورشید
 بهار گاه خزان باشد و گهی مردان
 بر آنچه میگذرد دل منه که دجله بسی
 پس از خلیفه بخواند گذشت در بغداد
 گرت ز دست بر آید چو نخل باش کریم
 ورت ز دست نخیزد چو سرو باش آزاد
 بسی بدیده حسرت ز پس نگاه کند
 کسی که برگ قیامت ز پیش نفرستاد
 وجود خلق بدل میکنند ورنه زمین
 همان ولایت کیخسرو است و ملک قباد

B.

کجا همی رود آن شاهد شکر گفتار
 چرا همی نکند بر دو چشم من رفتار
 بافتاب نماند مگر بیک معنی
 که در تامل او خیره میشود ابصار
 نظر در آئینه روی عالم افروزش
 مثال صیقل از آئینه میبرد زنگار
 برات خوبی و منشور لطف و زیبایی
 نبشته بر گل پریش بخت سبز غبار
 لبش ندانم و خدش چگونه وصف کنم
 که این چو دانه ناراست و آن چو شعله نار
 چو در محاوره آید زبان شیرینش
 کجا شدند تماشا کفان شیرین کار
 نسیم صبح بر اندام نازکش گذشت
 چو بازگشت به بستان بر بخت برگ بهار
 متابع توام ایدوست گردناری ننگ
 مطاوع توام ای یار گهر نداری عار
 تو در کمند من آئی کدام دولت و بخت
 من از تو روی به پیچم کدام صبر و قرار
 حدیث عشق تو با کس نمیتوانم گفت
 که غیرتم نگذارد که بشنم اغیار

3. Translate into Persian:—

Clive returned to Madras victorious, but in a state of health which rendered it impossible for him to remain there long. He married at this time a young lady of the name of Maskelyne, sister of the eminent

mathematician, who long held the post of Astronomer Royal. Almost immediately after the marriage Clive embarked with his bride for England. He returned a very different person from the poor slighted boy who had been sent ten years before to seek his fortune. He was only twenty-seven, yet his country already respected him as one of her first soldiers. There was then general peace in Europe. The Carnatic was the only part of the world where the English and French were in arms against each other. The vast schemes of Dupleix had excited no small uneasiness in the city of London; and the rapid turn of fortune, which was chiefly owing to the courage and talents of Clive, had been hailed with great delight. The young captain was known at the India House by the honourable nickname of General Clive, and was toasted by that appellation at the feasts of the Directors. On his arrival in England he found himself an object of general interest and admiration. The East India Company thanked him for his services in the warmest terms, and bestowed on him a sword set with diamonds. With rare delicacy, he refused to receive this token of gratitude, unless a similar compliment were paid to his friend and commander Lawrence.

It may easily be supposed that Clive was most cordially welcomed home by his family, who were delighted by his success, though they seem to have been hardly able to comprehend how their naughty idle Bobby had become so great a man. His father had been singularly hard of belief. Not until the news of the defence of Arcot arrived in England was the old gentleman heard to growl out that, after all, Bobby had something in him. His expressions of approbation became stronger and stronger as news arrived of one brilliant exploit after another; and he became at length immensely fond and proud of his son.

PERSIAN.

FOURTH HONOURS PAPER.

Examiner.—KHAN BAHADUR MAULAVI MD. IBRAHIM, B.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English *only one* of the following extracts with 14 explanatory notes:—

A.

شب روان از صبح صادق کعبهٔ جان دیده اند
صبح را چون محرومان کعبه عریان دیده اند
از لباس نفس عریان مانده چون ایمان و صبح
هم بصبح از کعبهٔ جان روی ایمان دیده اند

در شکر ریزند ز اشک خون که گردون را بصبح
 همچو پسته سبز و خون آلود و خندان دیده اند
 وادی فکرت بریده محرم عشق آمده
 موقوف شرق ایستاده کعبه جان دیده اند
 روز و شب دیده دو گار پیسه در قربان گهش
 صبح را تیغ و شفق را خون قربان دیده اند
 خوانده اند از لوح دل شرح مناسک بهر آنکه
 در دل از خط ید الله صد دبستان دیده اند
 نام سلطان خوانده هم بریاسچ سلطان از آنکه
 دل علامتگاه یاسجهای سلطان دیده اند

B.

صبحدم چون کله بفتد آه دود آسای من
 چون شفق در خون نشیند چشم شب پیمای من
 مجلس غم ساخت ست و من چو بید سوخته
 تا بمن راق کند مژگان می پالای من
 رنگ بازیچه است کار گنبد نارنج رنگ
 چند جوشم کز بروم نگذرد صفرای من
 تیر باران سحر دارم سپر چون نفگند
 این کهن گرگ خشن بارانی از غوغای من
 این خماین گون که چون ریم آهنگ پالود و سوخت
 شد سکاھن پوشش از دود دل دروای من

روی خاک آلود من چون کاه بر دیوار حبس
 از رخ که گل کند اشک زمین اندای من
 مار دیدی در گیا پیچان کفون در غار غم
 مار بین پیچیده در ساق گیا آسای من

2. (a) Derive **مقدم** and give its various vocalization with their derivative and secondary meanings used in Persian. 4

(b) What is the signification of **دم** in **مقدم**? In what other meanings is this particle used in Persian? Give examples. 5

(c) Write in Persian a short note on **مناسک**, and performances connected therewith. Give also its derivative and secondary meanings. 5

(d) Write philological notes on **دبستان** - **کعبه** and **مسکاهن**. 3

3. Annotate, in Persian, any five of the following extracts:— 15

(a) بود موجود را کثرت برونی

که او وحدت ندارد جز درونی
 وجود کل ز کثرت گشت ظاهر
 که او در وحدت جزوست سائر

(b) بهر لحظه جوان این کهنه پیرست

بهر دم اندر و حشر و بشیرست
 درو چیزی در ساعت مینماید
 در آن لحظه که می میرد بزاید

(c) بقا حقست و باقی جمله فانیت

بیانش جمله در سبع المثانیست

چو کُلِّ مَنْ عَلَيَّهَا فَاَنْ بَيَّانُ كَرْد
 لَفِي خَلْقٍ جَدِيدٍ هَمْ عِيَانُ كَرْد

(d) جمله رسل بردش مغلس و طالب ز کوه
 او شده تاج رسل تاجر صاحب نصاب
 عطسه او ادم ست عطسه ادم مسیح
 اینت خلف کز شرف عطسه او بود باب

(e) بیداد آور مقام حال فطرت

کز آنجا باز دانی اصل فطرت
 اَلَسْتُ بِرَبِّكُمْ ایزد چرا گفت
 که بود آخر که آن ساعت بلی گفت

(f) شب روان چون رخ صبح آئنه پیدا بینند

کعبه را چهره در آن آئنه پیدا بینند
 گرچه زان آئنه خاتون عرب را نگرند
 در پس آئنه رومی زن رعنا بینند

4. Write, in Persian, a short account of the life of Shaikh Muhammad Shabistari, and state what led him to write *Gulshan-i Raz*? 10
 What other famous works did he write on Sufism?

5. Translate into English, adding explanatory notes so as to make the sense clear :— 12

ما فتنه بر تو ایم و تو فتنه بر آئنه
 ما را نگاه در تو ترا اندر آئنه
 تا آئنه جمال تو دید و تو حسن خویش
 تو عاشق خودی ز تو عاشق تر آئنه
 از روی تو در آئنه جانها شود خیال
 زمین روی نازها کند اندر سر آئنه
 از نور و صفوت لب تو آورد عیان
 در یک مکان هم آتش و هم کوثر آئنه

ای آئنه پذیر مشو آئنه پرسه
 پنج دلم مخواهه ر دل بر آئنه
 هر جا که آهن ست بسوزم ز آه دل
 تا هیچ میقلی نه کند دیگر آئنه

6. (a) In whose praise was the above *gasida* written by Khaqani? 6
 Give a short account of his life in Persian.

(b) Explain clearly the difference of meaning, if any, that under- 4
 lies the words حسن and جمال. Can one be substituted for the other?

(Give your reason.)

(c) Give the root-meaning of the word فتنه, and also the different 3
 meanings in which it is used in Persian literature, noticing its develop-
 ment.

7. Translate into Persian :—

20

Popular Feeling in Japan.

The Japanese people unanimously welcome the present opportunity to return the insults and oppression suffered at the hands of Germany during the past few years. In saying this I am but repeating what I hear from their own lips. The Government of Japan insists that the war with Germany is solely the outcome of Japan's adherence to the terms of the Alliance with Great Britain; but the people say that most of their troubles during the past decade or so are the outcome of German influence in Europe and America. German militarism in Europe has obliged all nations to spend fabulous sums on armaments, and this has been a dread oppression to the poor people of Japan. And Germany inflicted on Japan an ineffaceable insult when she demanded the evacuation of Port Arthur by Japan after the war with China, the demand being couched in the most insulting words, while the demand from France and Russia was in terms impeccably courteous. Since the opening of the conflict in Europe too, Japanese merchants and manufacturers have suffered great losses on account of the Germans seizing merchant ships laden with Japanese goods.

PERSIAN.

FIFTH HONOURS PAPER.

Examiner—MAULAVI MD. ABU TAHIR.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into Persian :—

8

إِنَّا فَتَحْنَا لَكَ فَتْحًا مُبِينًا لِيُغْفِرَ لَكَ اللَّهُ مَا تَقَدَّمَ مِنْ ذَنْبِكَ
وَمَا تَأَخَّرَ وَيُتِمَّ نِعْمَتَهُ عَلَيْكَ وَيَهْدِيَكَ صِرَاطًا مُسْتَقِيمًا وَيَنْصُرَكَ
اللَّهُ نَصْرًا عَظِيمًا هُوَ الَّذِي أَنْزَلَ السَّكِينَةَ فِي قُلُوبِ الْمُؤْمِنِينَ
لِيَزِيدُوا إِيمَانًا مَعَ إِيمَانِهِمْ وَاللَّهُ جَنَّودَ السَّمَاوَاتِ وَالْأَرْضِ وَكَانَ اللَّهُ
عَلِيمًا حَكِيمًا *

2. Explain the following verses in accordance with the annotation 12
of تفسیر حسینی (answer in Persian) :—

ق وَالْقُرْآنِ الْمَجِيدِ بَلْ عَجَبُوا أَنْ جَاءَهُمْ مُنْذِرٌ فَقَالَ الْكَافِرُونَ
هَذَا شَيْءٌ عَجِيبٌ إِذَا مِتْنَا وَكُنَّا تُرَابًا ذَلِكَ إِجْعَ بَعِيدٌ
قَدْ عَلِمْنَا مَا تَنْقُصُ الْأَرْضُ مِنْهُمْ وَعِنْدَنَا كِتَابٌ حَفِیْظٌ *

3. (a) What part of speech is لَنَا ?

3

(b) What kind of ما is in مَا تَقَدَّمَ and مَا تَأَخَّرَ ?

3

(c) What kind of لَمْ is in لَمْ يَزِدُوا and لَمْ يَكُنْ ?

3

(d) What does إِذَا مِتْنَا (هَمْزٌ) signify in إِذَا مِتْنَا ?

3

4. Translate into Persian:—

9

سبعان خالق السموات المسموكات - سبعان خالق الارضين
 المدحوات - سبعان خالق الافلاك الدائرات - يسبعان خالق
 البروج الطالعات - سبعان خالق الكواكب السيارات - سبعان
 مرسل الرياح الذاريات - سبعان منشئ السحب الممطرات -
 سبعان رب الرعود المسبكات - سبعان رب البرق اللامعات -
 سبعان رب البحور الزاخرات - سبعان مرسى الجبال
 الشامخات - سبعان مدبر الليل و النهار و الاوقات *

5. Translate into English:—

8

چون بحلیه اعتدال مزاج و تعدیل قوای جسمانی و نفسانی
 متحلی گردد - من حیث البدن و النفس شبیه به اجرام
 سماوی باشد - چه توسط بین الاضداد بمنزله خلو از ان ست -
 و بواسطه این تصفیة نفس او منتقش بصور حوادث ماضیه
 و آتیة بوجه جزوی شود - هم چون نفوس فلیکیه - یا بواسطه
 اطلاع بر عالم مثال که نزد اساطین حکمت بیانی و عیانی ثابت
 است - یا بواسطه انعکاس صور قدسیه از مصباح نفس ناطقه
 بمشکوة خیال و تمثیل او بصورت جسمانی که مقتضای حقیقت
 مرئی و طبیعت مرآت باشد *

16 - خلو - متحلی - نفسانی - حلیه (a) What parts of speech are
 مرئی و مشکوة - آتیة - منتقش

(b) Explain نفس ناطقه. How many kinds of نفس are there ? 8

12 - نفوس فلیکیه - تصفیة نفس - اجرام سماوی (c) Explain:—
 انعکاسی and حکمت بیانی و عیانی - عالم مثال

7. Translate any five of the following into Arabic:—

45

(a) Give my respects to your father.

(b) At what time do you generally retire to sleep ?

- (c) It is time to go to bed.
- (d) Please take a seat by the table.
- (e) Will you not take a boiled egg ?
- (f) At what do you sell it per yard ?
- (g) Why have you not called on us for some time past ?
- (h) I am doing quite well.
- (i) I must not stay any longer.
- (j) I am tired of waiting.

PERSIAN.

SIXTH HONOURS PAPER.

Examiner—MAULAVI MD. IRFAN, M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The questions are of equal numerical value.

GROUP I.

Any FOUR questions to be attempted.

1. Discuss the sources of the *Shahnama* with a reference to the persons reputed to have taken part in its composition.
2. Write a note on Fariduddin Attâr—his biography and literary works. Assign his proper place among Sûfî poets.
3. Give a short account of the following works with the names of their authors and subject-matter:—*Kimia-i-Saâdat*, *Baharistan*, *Miratul Khayal*, *Qabus-nama*, *Silsî-latuzzahb*.
4. Give the plan, purpose, and scheme of *Gulshan-i-Raz*, and compare the philosophy it teaches with that of *Sanâi*.
5. Trace the development of the art of history-writing in Persian. Name some of the well-known Persian historians with their works.

GROUP II.

Any THREE questions to be attempted.

1. Describe the Mongol invasion of Persia, the events that led to it, and how it was checked.
2. Comment on the claims of the Abbasides to the Caliphate.
3. Sketch the careers of Humayun and of his contemporary on the Persian throne.
4. Name the places that at different times formed the capital of Bengal, and mention the occasion when each came to be the seat of government.

GROUP III.

Any THREE questions to be attempted.

1. Distinguish تشبیه from استعاره. Illustrate your answer and name their component parts.

2. Name and explain the rhetorical figures in the following lines:—

بیوی نافه کاخر مہا زان طره بکشاید
ز تاب جعد مشکینش چه خون افتاد در دلها
حریفی بد مرا ساقی که مردم
ز زلف و رخ نمودی شمس و دی را

3. Explain **سبب** and **و تہ**, and give their sub-divisions with examples:—

4. Scan and name the **metre**:—

ساقیا برخیز و در ده جام را خاک بر سر کن غم ایام را
ای در تگ و پوی توز آغاز عقیای نظر بلند پرواز

PERSIAN.

FIRST PASS PAPER.

Examiner—MAULAVI MD. ABU TAHIR.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

- 1 Translate, adding explanatory notes where necessary:—

12

بہار آمد کہ از گلبن ہمی بانگ ہزار آید
بہر ساعت خروش مرغ زار از مرغزار آید
تو گوئی ارغنون بستند بر ہر شاخ و ہر برگ
ز بس بانگ تدر و ملصل و دراج و سار آید
بجوشد مغز جان چون بوی گل از بوستان خیزد
بپرد مرغ دل چون بانگ مرغ از شاخسار آید
خروش عذلیب و صوت سار و نالہ قمری
گہی از گل گہی از سروبن گاہ از چنار آید

تو گوئی ساحت بستان بهشت عدن را ماند
 ز بس غلمان و حور انجا قطار اندر قطار آید
 یکی بر کف نهد لاله که ترکیب قدح دارد
 یکی بر گل کند تحسین کز بوی نگار آید
 یکی با دلبر ساده بطرف بوستان گردد
 یکی با ساغر باده بطرف جویبار آید
 یکی بیند چمن را بے تامل مرحبا گوید
 یکی بوید سمن را مات صفع کردگار آید

2. Explain in Persian :—

15

د بیان این شنو یک قصه
 تا بری از سر گفتم حصه
 بر عمر آمد ز قیصر یک رسول
 در مدینه از بیابان نغول
 گفت کو قصر خلیفه ای حشم
 تا من اسب و رحل را آنجا کشم
 قوم گفتندش که او را قد

مر عمر را قصه جان روشنیس

گرچه از میبری در او آوازه ایست
 همچو درویشان مرورا گازه ایست
 ای برادر چون به بینی قصر او
 چونکه در چشم دلت رستست مو
 چشم دل از موی علت پاکدار
 و انگهان دیدار قصرش چشم دار

هرکرا هست از هوسها جان پاک
 زود بیند حصرت ایوان پاک
 چون محمد پاک شد از نار و دود
 هر کجا رو کرد وجه الله بود
 چون رفیقی و سوسه بد خواہ را
 کی به بینی ثم وجه الله را

3. Translate into English:—

12

شب و روز تازان چو باد دمان
 نه پروای اب و نه اندوه نان
 چو نزدیکى زابلستان رسید
 خروش طلایه بدستان رسید
 که آمد سوارى ز ایران چو گرد
 بزیر اندرش باره ره نور
 تهمتن پذیره شدش با سپاه
 نهادند بر سر بزرگان کلاه
 پیاده شدش گيو و گردان بهم
 هر آنکس که بر زمین بد از بیش و کم
 از اسب اندر آمد گو نامدار
 از ایران پیرسید و از شهریار
 ز ره سوى ایوان رستم شدند
 زمانی ببودند و دم برزدند
 بگفت آنچه بشنید و نامه بداد
 ز سهراب چندی سخن کرد یاد

تہمتن چو بشنید و نامہ بخواند

بخندید و زان کار خیرہ بماند

4. (a) Derive and پذیرہ - رہہ - دمان - تازان 5

(b) Analyse the fifth line (پیدادہ شدش الخ) 2

5. Translate into English, adding explanatory notes where necessary:—

(a) زاهد ظاہر پرست از حال ما آگاہ نیست 8

در حق ما ہرچہ گوید جایی ہیچ اکراہ نیست

در طریقہٴ ہرچہ پیش سالک آمد خیراوست

برصراط مستقیم ای دل کسی گمراہ نیست

تا چہ بازی رخ نماید بیدقی خواہیم رازد

عرصہ شطرنج زندان را مجال شاہ نیست

ایندچہ استغناست یا رب و این چہ داور حاکمی است

کاین ہمہ زخم نہان ست و مجال آہ نیست

(b) ترسم ان قوم کہ بر درد کشان میخندند 8

در سہکار خوابات کفند ایمان را

یار مردان خدا باش کہ در کشتی نوح

ہست خاکی کہ بابی نخورد طوفان را

ماہ کنعانی من مسند مصر آن تو شد

رفت انسست کہ پدرود کنی زندان را

ملک ازادگی و کنج قناعت گنجیست

کہ بشمشیر میسر نشود سلطان را

10. (c) Write notes on - سالک - طریقت - بیدقی - رخ طوفان زندان - شاہ. in extract (a), and explain fully the following in extract (b):—
ماہ کنعانی من مسند مصر آن تو شد - ہست خاکی کہ بابی نخورد طوفان را

6. What is حاصل بالمصدر ? How is it formed ? State the different ways and give examples.

7. Both حافظ and مولانا روم are believed to be Sufistic poets. 20
State the distinctive features of the writings of each of them. Answer in Persian.

PERSIAN.

SECOND PASS PAPER.

Examiner—MAULAVI MD. IRFAN, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English : --

10

و العديت صبعا فالموريات قدحا فالمغيرات صبعا فاثرن به
نقعا فوسطن به جمعا - ان الانسان لربد لکنود و انه على ذلك
لشديد و انه لحب الخير لشديد افلا يعلم اذا بعثر ما فى القبور
و حصل ما فى الصدور ان ربهم بهم يومئذ لخبير *

2. (a) Write in your own Persian the tradition mentioned in connexion with the revelation of this سورة. Where was this سورة revealed ? 4

(b) In the passage انسان لربه لکنود state to whom does the word انسان refer ? Give the various interpretations of the word کفود. 4

(c) Point out the antecedents of و in the two انه in the above extract. 2

3. Render into Persian any one of the following extracts :--

10

A.

قالت بلغنى ايها الملك السعيد ان السندباد البحرى لما
ضرب الحية بالقضيب الذهب الذى كان بيده و القت الرجل
من فمها قال فتقدم الى الرجل و قال حيث كان خلاصى على
يديك من هذه الحية فما بقيت افارقك و انت صرت رفيقى

فى هذا الجبل فقلت له مرحبا وسرنا فى ذلك الجبل و
اذا بغوم اقبلوا علينا فنظرت اليهم و اذا فيهم الرجل الذى كان
حملني على اكتافه و طاربنى فتقدمت اليه و اعتذرت له
و تالطفت به و قلت له يا صاحبى ما هكذا تفعل الاصحاب
باصحابهم فقال لى الرجل انت الذى اهلكتنا بتسبيحك
على ظهري *

B.

ان طالب بن سهل سار هو و اصحابه يقطعون البلاد من الشام
الى ان دخلوا مصر فتلقاء امير مصر و انزله عنده و اكرمه غاية
الاکرام فى مدة اقامته عنده ثم بعث معه دليلا الى انصعيد الا
على حتى وصلوا الى الامير موسى بن نصير فلما علم به خرج
اليه و تلقاه و فرح به فناولته الكتاب فاخذة و قرأه و فهم معذلة و وضعه
على رأسه و قال سمعا و طاعة لامير المؤمنين ثم انه اتفق رايه
على ان يحضر ارباب دولته فحضرُوا فسألهم عما بداله فى الكتاب
فقالوا ايها الامير ان اردت من يدلك على طريق ذلك المكان
فعليك بالشيوخ عبد الصمد بن عبد القدوس الصمودى فانه رجل
عارف و قد سافر كثيرا و هو خبير بالبرارى و القفار و البحار
و سكانها و عجائبها و الارضين و اقطارها *

4. (a) Give the singular or plural, as the case may be, of *any six* 6
of the following words:—

يد - حية - اكناف - ظهر - قطيب - دليل - مكان - برارى
قفار *

(b) Name the باب and صيغة of *any three* of the following words, 6
and explain the تعليل they have undergone:—

طار - تلقاء - ناوله - قراءة - اتفق *

5. (a) How are *causal verbs* formed in Arabic? Give examples, with an explanation of any differences which occur. 6

(b) Explain the difference between *ربما* and *رب*, illustrating your answer with examples. 3

6. Translate into English :--

الحق حقه باز چرخ ناساز طرفه آتشدستی بکار برده هر مهره 16
 که در توپ پنهان کرده بودند از مهره پشت گریختگان نمایان
 ساخت و نراد فلک غلط انداز عجب مهره بطاس انداخت
 دوششی که آن ششزاری ششزار سوار زده بود بخال زیاد گوله
 های تفنگ در باخت اما صد آفرین بر شوکت آن سرگروه
 با تدبیر و هزار تحسین بر سرعت آن مبارز دلیر که نقره نواخته
 از آنجا مراجعت کرد و مانند صدا از کوه فوراً برگشت و الا
 چنانکه رفیقان بے باک دران مکان خطر ناک وی را تنها
 گذاشته پیش رفته بودند اگر محصوران زیاده رو کم بخت
 و متحصنان سست رای دل سخت بمقتضای "قست
 قلوبهم فپی کالحجارة او اشد قسوة" در پناه سنگ قباحتی
 میکردند حیف بود دیگر چرخ پیر را در پیدا کردن چنین
 جوانی چه قدر بایستی گشت *

7. (a) Write notes in Persian on—

9

حقه باز چرخ - مهره بطاس انداخت * دوششی که آن
 ششزاری ششزار سوار زده بود بخال زیاده گوله های تفنگ
 در باخت *

(b) Comment on the phrase *آتشدستی بکار برد*. Give the correct expression from which the above has been borrowed. 3

(c) What is the difference between *مهره بطاس انداخت* and *مهره بطاس زد*? 1

8. Explain in Persian *any five* of the following phrases:—

10

- (a) از حوصله شناسائی قدمی فراتر نهد *
- (b) از عفتوان هستی خدیو خدا آگاهان سر آغاز گردانید *
- (c) معامله نافهمان از سنوح این سانحه در گوناگامی فرو شدند *
- (d) حکم معلى از مکمن سیاست و معدلت صادر شد *
- (e) ملازمان عتبه اقبال برهنمونى سعادت اخلاص گزین گردند *
- (f) کتابه مدارج اخلاص مخلصان بر پیشطاق عیان نگارش یابد *
- (g) حاجی محراب به پیش طاق دولت خانه چون ساعیان صفا و مروءه دویده آمد *

9. Write in your own Persian the substance of—

10

وقایع ایام محاصره قلعه حیدرآباد بتاریخ چهاردهم شهر رجب
سنه ۲۵ جلوس شاه عالمگیر غازی *

PERSIAN.

THIRD PASS PAPER.

Examiner—MAULAVI HEDAYET HOSSAIN.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Translate into English:—

- (a) و ان بدبخت بعد از حصول نقود نامصدود و جواهرزواهر - 25
- فرمود تا در موضع خوش هوا از منزهات شام باغی وسیع مشتمل
بر قصر بدیع طرح انداختند - و جدار آفر خشته از سیم و خشته
از زر ساختند - و فرمود تا هریک از سرهنگان او که عدد ایشان
نه هزار می رسید در ان بستان از برای خود کوشی تعمیر

نمایند - و آن گلستان در مدت پانصد سال صورت اتمام یافت و شداد در نواحی حضر موت این خبر شنیده بر جناح استعجال بدانجانب توجه نمود - در اثنای راه اهوائی در نهایت زیبایی به نظر او در آمد - شداد به طمع صید اسب بر انگیخته چون از سپاه خود دور افتاد سواری مهیب دید که متوجه اوست - متوهم گشته - سوار نزدیک رسیده پرسید که به سبب این عمارت که ساختی از چنگ اجل امان یافتی - شداد از مهابت این سخن بر خود بلرزید و گفت، که تو کیستی - جواب داد که ملک الموت ام و به قبض روح تو آمده ام - شداد گفت مرا چندان امان ده که یک نظر بر این گلستان بهشت نشان اندازم - عزرائیل گفت رخصت نیست - انکه شداد از اسب افتاده فارس روحش از رکب تن پیاده گشت و سپاهش از جانب اسمان اواز هایل شنیدند و به نار جهنم واصل شدند و آن عمارت عالی از عیون مردم پنهان ماند *

(b) روضه خلد برین خلوت درویشانست

مایه محتشمی خدمت درویشانست

کنج غرلت که طلسمات عجایب دارد

فتح آن در نظر همت درویشانست

قصر فردوس که رضوانش به درباری رفت

منظر از چمن نزهت درویشانست

آنچه زر میشود از پرتو آن قلب سیاه

کیمیائست که در صحبت درویشانست

و آنکه بیشش بنهد تاج تکبر خورشید
 کبریا نیست که در حشمت درویشانست
 دولتی را که نبا شد غم از آسیب زوال
 بے تکلف بشنو دولت درویشانست
 خسروان قبله حاجات جهان اند ولی
 از ازل تا بابد فرصت درویشانست
 روی مقصود که شاهان جهان می طلبند
 مظهر ائینه طلعت درویشانست
 ای توانگر مفروش اینهمه نخوت که ترا
 سروری در کف همت درویشانست
 گنج قارون که فرو میبرد از قعر هفتوز
 خوانده باشی تو که از غیرت درویشانست
 بنده آصف عهدیم که در سلطنتش
 صورت خواجگی و سیرت درویشانست
 حافظ اینچا بادب باش که سلطان و ملک
 همه در بندگی حضرت درویشانست

2. Translate into simple Persian :—

Every one should endeavour so to vary his employments and so to mix them up with amusements and recreation as to obviate the inevitable consequences of monotony.

Recreations are sometimes necessary both to the body and mind of a man, neither of them being able to endure a constant toil without somewhat of refreshment between; and therefore there is a very lawful use of them; but to make it so, it will be necessary to observe these cautions. First, we must take care that the kind of them be lawful, that they be such as have nothing of sin in them; we must not, to recreate ourselves, do anything which is dishonourable to God, or injurious to our neighbour; as they do, who make profane, filthy, or backbiting discourse their recreation. Secondly, we must take care that we use it with moderation; and to do so, we must first be sure not to spend too much time upon it, but remember that the end of recreation is to fit us for business, not to be itself a business to us.

Thirdly, we must not be too vehement and earnest in it, nor set our hearts too much upon it; for that will both ensnare us to the using too much of it, and it will divert and take off our minds from our more necessary employments, like schoolboys who, after a playtime, know not how to set themselves to their books again. Lastly, we must not set up to ourselves any other end of recreation but that lawful one of giving us moderate refreshment.

LATIN.

DR. H. STEPHEN, M.A., D.D.

Paper-setters— } REV. DR. G. HOWELLS, M.A., PH.D., B.LITT.,
 } B.D.
 } REV. FATHER F. X. CROHAN, S.J.

FIRST PASS PAPER.

*Examiner—*DR. H. STEPHEN, M.A., D.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate:—

28

- (a) Vir bonus et prudens versus reprehendet inertes, culpabit duos, incompitis allinet atrum transverso calamo signum, ambitiosa recidit ornamenta, parum claris lucem dare coget, arguet ambigue dictum, mutanda notabit, fiet Aristarchus; non dicet: cur ego amicum offendam in nugis? Hae nugae seria ducent in mala derisum semel, exceptumque sinistro.

Derive—*inertes*, *incompitis*, *ambitiosa*, and *ambigue*. Explain any allusion in the passage.

- (b) Nil intentatum nostri liquere poetae;
 nec minimum meruere decus vestigia Graeca
 ausi deserere, et celebrare domestica facta:
 vel qui praetextas, vel qui docuere togatas.
 Nec virtute foret clarisve potentius armis
 quam lingua Latium, si non offenderet unum-
 quemque poetarum limae labor et mora. Vos, O
 Pompilius sanguis, carmen reprehendite quod non
 multa dies et multa litura coercuit, atque
 praeseptum decies non castigavit ad unguem.

Explain and fully illustrate historically the above passage.

2. To what different forms of poetry does Horace refer in the *Ars Poetica*, and what suggestions does he give regarding each? What account does he give of the origin and history of the drama? What does he say about the relation of art and genius in poetical composition? 15

3. Translate :—

27

- (a) Ipse ego nunc miror tantis animique marisque
 fluctibus ingenium non cecidisse meum.
 seu stupor huic studio sive est insania nomen,
 omnis ab hac cura mens relevata mea est.
 saepe ego nimboris dubius jactabar ab Haëdis,
 saepe minax Steropes sidere pontus erat,
 fuscabatque diem custos Atlantidos ursae,
 aut Hyadas seris hauserat Auster aquis;
 saepe maris pars intus erat; tamen ipse trementi
 carmina ducebam qualiacunque manu.
 nunc quoque contenti stridunt Aquilone rudentes,
 inque modum tumuli concava surgit aqua.

Explain this passage fully with its allusions.

- (b) Si tamen haec navis vento ferretur amico,
 ignoraretur forsitan ista fides;
 si non Euryalus Rutulos cecidisset in hostes,
 Hyrtacidae Nisi gloria nulla foret.
 scilicet ut flavum spectatur in ignibus aurum,
 tempore sic duro est inspicienda fides.
 dum juvat et vultu ridet Fortuna sereno,
 indelibatas cuncta secuntur opes;
 at simul intonuit, fugiunt, nec noscitur ulli
 agminibus comitum qui modo cinctus erat.

Explain the allusion. Scan the last two lines. Give the substance of the passage describing Ovid's last night in Rome.

4. Translate (unprepared) :—

- (a) *Ovid's description of primitive men* :—

18

Ante Jovem genitum terras habuisse feruntur
 Arcades, et luna gens prior illa fuit.
 vita feris similis, nullos agitata per usus:
 artis adhuc expers et rude vulgus erat.
 pro domibus frondes norant, pro frugibus herbas,
 nectar erat palmis hausta duabus aqua.
 nullus anhelabat sub adunco vomere taurus,
 nulla sub imperio terra colentis erat;
 nullus adhuc erat usus equi; se quisque ferebat:
 ibat ovis lana corpus amicta sua.
 sub Jove durabant et corpora nuda gerebant,
 docta graves imbres et tolerare Notos.

- (b) *Phaethon struck down by lightning* :—

15

At pater omnipotens superos testatus et ipsum
 qui dederat currus, nisi opem ferat, omnia fato
 interitura gravi, summam petit arduus arcem,
 unde solet latis nubes inducere terras;
 unde movet tonitrus, vibrataque fulmina jactat.
 intonat; et dextra libratum fulmen ab aure
 misit in aurigam; pariterque animaque rotisque
 expulit, et saevis compescuit ignibus ignes.
 at Phaethon, rutilos flamma populante capillos,
 volvitur in praeceps, longoque per aëra tractu
 fertur; ut interdum de caelo stella sereno,
 etsi non cecidit, potuit cecidisse videri.

LATIN.

SECOND PASS PAPER.

Examiner—G. H. LUCE, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate:—

15

(a) 'Apud exercitum mihi fueris,' inquit, 'tot annos, forum non attigeris? Afueris tam diu ut cum longo intervallo veneris cum his, qui in foro habitarent, de dignitate contendas?' Primum ista nostra assiduitas, Sorvi, nescis quantum interdum adferat hominibus fastidii, quantum satietatis. Mihi quidem vehementer expedit positam in oculis esse gratiam, sed tamen ego mei satietatem magno meo labore superavi, et tu idem fortasse: verum tamen utrique nostrum desiderium nihil obfuisse.

Parse—*fastidii, idem.*

Give the principal parts of *attigeris, adferat.*

(b) Legem ambitus flagitasti, quae tibi non deerat; erat enim severissime scripta Calpurnia. Gestus est mos et voluntati et dignitati tuae. Sed tota illa lex accusationem tuam, si haberes nocentem reum, fortasse armasset, petitioni vero refragata est. Pœna gravior in plebem tua voce efflagitata est; commoti animi tenuiorum; exilium in nostrum ordinem: concessit senatus postulationi tuae.

Explain the use of the subjunctive in *haberes, armasset.*

(c) Non igitur, si L. Natta, summo loco adulescens, qui et quo animo iam sit et qualis vir futurus sit videmus, in equitum centuriis voluit esse et ad hoc officium necessitudinis et ad reliquum tempus gratiosus, id erit eius vitrici fraudi aut erimini, nec si virgo Vestalis, huius propinqua et necessaria, locum suum gladiatorum concessit huic, non et illa pie fecit et hic a culpa est remotus.

Write a note on *virgo Vestalis.*

2. Translate and explain:—

6

(a) Fuit enim quidem summo ingenio vir, Zeno, cuius inventorum aemuli Stoici nominantur.

(b) Horum ingenio senes ad coemptiōnes faciendas interimendorum sacrorum causa reperti sunt.

(c) Inventus est scriba quidem Cn. Flavius, qui cornicem oculos confixerit.

3. Explain:—*quae mancipi sunt, coemptio, praetextati filii, pugnam navalem ad Tenedum commissam, publicani, Diogenes Cynicus.*

6

Either,

4. State briefly the circumstances that led to the prosecution of Murena.

10

Or,

What is the main line of Cicero's arguments in defence of Murena?

5. Translate:—

20

(a) Inde exercitu victore reducto ipse, cum factis vir magnificus tum factorum ostentator haud minor, spolia ducis hostium caesi suspensa fabricato ad id apte ferculo gerens in Capitolium ascendit ibique ea cum ad quercum pastoribus sacram deposuisset, simul cum dono designavit templo Iovis finis cognomenque addidit deo. 'Iuppi-

ter Feretri,' inquit, 'haec tibi victor Romulus rex regia arma fero templumque his regionibus, quas modo animo metatus sum, dedico, sedem opimis spoliis, quae regibus ducibusque hostium caesis me auctorem sequentes posteri ferent.'

Write notes on—*ferculo, Iuppiter Feretri, opimis spoliis*.

Explain the use of the subjunctive in *deposuisset*.

Summarize the uses of *cum* with the Indicative.

(b) Ad Ianiculum forte ventum erat. Ibi ei carpento sedenti cum uxore aquila suspensis demissa leniter alis pilleum aufert: superque carpentum cum magno clangore volitans rursus velut ministerio divinitus missa capiti apte reponit: inde sublimis abit. Accepisse id augurium laeta dicitur Tanaquil, perita, ut vulgo Etrusci, caelestium prodigiorum mulier. Excelsa et alta sperare complexa virum iubet: eam alitem, ea regione caeli et eius dei nuntiam venisse, circa summum culmen hominis auspiciū fecisse, levasse humano superpositum capiti decus, ut divinitus eidem redderet.

Explain the use of the cases in—*ei, alis, ministerio, humano*.

Write notes on—*aruspices, ficus Ruminalis, consualia, cloacis fastigio in Tiberim ductis*.

Either.

6. Indicate, with special reference to Book I, Livy's merits and demerits as a historian. 10

Or,

What reasons have we for doubting Livy's account of the Kings at Rome?

7. Translate:—

15

(a) Sed diique et homines prohibere redemptos vivere Romanos. Nam forte quadam, priusquam infanda merces perficeretur, per alterationem nondum omni auro appenso, dictator intervenit auterique aurum de medio et Gallos submoveri iubet. Cum illi renitentes pactos dicerent sese, negat eam pactionem ratam esse, quae, postquam ipse dictator creatus esset, iniussu suo ab inferioris iuris magistratu facta esset, denuntiatque Gallis, ut se ad proelium expediant.

(b) Huius beneficii gratiam, iudices, fortuna populi Romani et vestra felicitas et di immortales sibi debere putant. Nec vero quicumque aliter arbitrari potest, nisi qui nullam vim esse ducit numenve divinum, quem neque imperii nostri magnitudo neque sol ille nec caeli signorumque motus nec vicissitudines rerum atque ordines movent, neque id quod maximum est, maiorum sapientia, qui sacra, qui caerimoniae, qui auspicia et ipsi sanctissime coluerunt et nobis suis posteris prodiderunt.

LATIN.

THIRD PASS PAPER.

Examiner—W. C. WORDSWORTH, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

A. COMPOSITION.

1. Translate into Latin:—

(a) Titus was beloved by the Romans, and those whom the Romans loved ever died young. Fate, indeed, did not always require 25

that they should suffer; but the career of Titus was not only brief, but remarkable in its latter years for a series of public disasters. In the first place the city was visited by a terrible conflagration, which raged unchecked for three days. The Capitol itself fell once more a prey to the flames. Again Rome suffered from a pestilence, in which, if one may credit the historians of the time, ten thousand persons perished daily. The great eruption of Vesuvius, which overwhelmed the cities of Campania, was perhaps more alarming, though the loss it inflicted might be less. This calamity, as is well known, has been described to us by the younger Pliny, whose uncle perished in his own house on the promontory of Misenum. Herculaneum and Pompeii were completely destroyed by the eruption: while other towns between them and around them suffered but little from the disaster.

(b) Among those who incurred the suspicion of secretly favouring the enterprises of Catiline, the most powerful citizen was C. Julius Caesar. By continual bodily exercises, Caesar had so strengthened his constitution, which in childhood was very weak, that it was capable of bearing all seasons and climates. In every undertaking by which he sought to raise himself to the rank of the first in Rome, and in the world, fortune favoured him, because, although he indulged in every excess, he still retained command over himself. Without speaking of his other qualities, we cannot but observe a peculiar promptness and vigour which characterized all his actions. 25

B. GRAMMAR.

1. Give, with examples, the various types of conditional statements used in Latin. 7

2. Frame sentences to illustrate the changes involved in converting Direct Discourse into Indirect Discourse. 7

Either,

3. Discuss and illustrate the arrangement of words in Latin. 6

Or,

Summarize the general rules of metrical quantity.

C. ROMAN HISTORY.

Any THREE questions to be answered.

1. Review the history of early Rome culminating in its emancipation from the rule of alien princes, and the final abolition of the kingly office. 10

2. 'In the course of little more than a century Rome had become the supreme power in the civilized world.' Expand and justify this statement. 10

3. Review the activities of the Gracchi and distinguish the transitory and permanent effects of their legislation. 10

4. Review the conditions which brought about the fall of the Roman Republic and made Caesarism inevitable. 10

GREEK

FIRST HONOURS PAPER.

Paper-setters— { REV. R. GEE, M.A.
REV. A. B. JOHNSTON, M.A.
REV. G. H. C. ANGUS, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English :—

13

(a) Ἄλλ' ἢ τοι μὲν ταῦτα θεῶν ἐν γούνασι κείται,
ἢ κεν νοστήσας ἀποτίσεται, ἥε καὶ οὐκί,
οἷσιν ἐνὶ μεγάροισι· σὲ δὲ φράζεσθαι ἀνωγα
ὅπως κε μνηστῆρας ἀπώσται ἐκ μεγάροιο.
εἰ δ' ἄγε νῦν ξυνίει καὶ ἐμῶν ἐμπάζεο μύθων·
αὔριον εἰς ἀγορὴν καλέσας ἥρωας Ἀχαιοὺς
μῖθον πέφραδε πᾶσι, θεοὶ δ' ἐπιμάρτυροι ἔστων.
μνηστῆρας μὲν ἐπὶ σφέτερα σκιδνασθαι ἀνωχθί,
μητέρα δ', εἰ οἱ θυμὸς ἐφορμάται γαμέεσθαι,
ἂψ ἰὼ ἐς μέγαρον πατρὸς μέγα δυνάμενοιο

Write explanatory or grammatical notes on the words underlined above 10

Scan the third, fourth, and ninth lines above, with comments on the scansion.

(b) Κτήματα δ' αὐτὸς ἔχους καὶ δώμασι σοῖσιν ἐνάσσεις.
μὴ γὰρ ὃ γ' ἔλθοι ἀνὴρ ὃς τίς σ' ἀέκοντα βίηφι
κτῆματ' ἀπορραΐσει, Ἰθάκης ἔτι ναιετοώσης

Explain the construction of δ' and κτήματα.

3

Write a note on the forms βίηφι and ναιετοώσης, and on differences of reading in the first line.

(c) “ Μέντορ ἀταρτηρέ, φρένας ἤλεέ, ποῖον ἔειπες
ἡμέας ὀτρύνων καταπαύμεν. ἀργαλέον δὲ
ἀνδράσι καὶ πλεόνεσσιν μαχήσασθαι περὶ δαίτι.
εἴ περ γάρ κ' Ὀδυσσεὺς Ἰθακήσιος αὐτὸς ἐπελθὼν
δαινυμένους κατὰ δῶμα ἐὼν μνηστῆρας ἀγαυοὺς
ἐξελάσαι μεγάροιο μενοιήσει' ἐνὶ θυμῷ,
οὐ κέν οἱ κεχάροιο γυνή, μάλα περ χατεύουσα,
ἐλθόντ', ἀλλὰ κεν αὐτοῦ ἀεικέα πότμον ἐπίσποι.
εἰ πλεόνεσσι μάχοιτο· σὺ δ' οὐ κατὰ μοῖραν ἔειπες.”

Write a note on the interpretation of the second sentence ἀργαλέον το δαίτι, and on the syntax of φρένας. Parse ἐλθόντ' and ἐπίσποι 3

Either,

2. What date would you assign to the *Odyssey*, and on what grounds? 6

Or,

Enumerate, with examples, the peculiarities of the Homeric use of the subjunctive.

3. (a) Translate into English with grammatical notes:— 10

Ἄλλ' ὃν πόλις στήσειε τοῖδε χρὴ κλίνειν
καὶ σμικρὰ καὶ δίκαια καὶ τάναντία.
καὶ τοῦτον ἂν τὸν ἄνδρα θαρσοῖην ἐγὼ
καλῶς μὲν ἄρχειν, εὖ δ' ἂν ἄρχεσθαι θέλιν,
δορός τ' ἂν ἐν χειμῶνι προσεταγμένον
μένειν δίκαιον κἀγαθὸν παραστιάτην,
ἀναρχίας δὲ μείζον οὐκ ἔστιν κακόν.

(b) Translate into English, with notes on grammar or subject matter:— 10

παρὰ δὲ Κυανέων σπιλάδων διδύμας ἀλὸς
ἀκταὶ Βοσπόριαι ἰδ' ὁ Θρηκῶν ἄξενος
Σαλμυδησός, ἴν' ἀγχιπτολὶς Ἄρης
δισσοῖσι Φινείδαις
εἶδεν ἀρατὸν ἔλκος
τυφλωθὲν ἐξ ἀγρίας δάμαρτος
ἀλαὸν ἀλαστόροισιν ὀμμάτων κύκλοις
ἀραχθέντων ὑφ' αἵματηραῖς
χείρεσσι καὶ κερκίδων ἀκμαῖσιν

4. What advance did the drama make in the hands of Sophocles? What are his chief qualities? 6

5. Write notes on:— 9

(a) Ἄρ' ἴστ' ἀοιδὰς καὶ γόους πρὸ τοῦ θανεῖν
ὥς οὐδ' ἂν εἰς παύσαιτ' ἂν. εἰ χρεὶν λέγειν;

(b) The difference between the language of the choric odes and that of the ordinary dialogue, giving illustrations.

(c) Καὶ φημι δρᾶσαι κοῦκ ἀπαρνοῦμαι τὸ μῆ.

6. Translate into English:— 30

(a) Εὐίππου, ξένε, τᾶσδε χώρας
ἴκου τὰ κρῆτιστα γᾶς ἑταυλα,
τὸν ἀργῆτα Κολωνόν, ἐνθ'
ἂ λῆγεια μινύρεται
θαμίζουσα μάλιστ' ἀηδῶν
χλωραῖς ὑπὸ βασσαῖς,
τὸν οἰνῶπ' ἀνέχουσα κισσὸν
καὶ τὰν ἄβατον θεοῦ
φυλλάδα μυριόκαρπον ἀνήλιον

ἀνήμερόν τε πάντων
χειμώνων· ἔν' ὁ βακχιώτας
αἰεὶ Διόνυσος ἐμβατεύει
θείαις ἀμφιπολῶν τιθήναις.

- (b) Μέγας δὲ πλευρὰ βούς ὑπὸ σμικρᾶς ὁμῶς
μάστιγος ὀρθὸς εἰς ὁδὸν πορεύεται.
καὶ σοὶ προσέρπον τοῦτ' ἐγὼ τὸ φάρμακον
ὀρώ τάχ' εἰ μὴ νοῦν κατακτῇσει τινά·
ὅς ἀνδρὸς οὐκέτ' ὄντος, ἀλλ' ἤδη σκιάς,
θαρσύν ὑβρίζεις κἄξελευθεροστομείεις.
οὐ σωφρονήσεις ; οὐ μαθὼν ὅς εἰ φύσιν
ἄλλον τιν' ἄξεις ἀνδρα δεῦρ' ἐλεύθερον,
ὅστις πρὸς ἡμᾶς ἀντὶ σοῦ λέξει τὰ σά ;
σοῦ γὰρ λέγοντος οὐκέτ' ἂν μάθοιμ' ἐγώ·
τὴν βάρβαρον γὰρ γλῶσσαν οὐκ ἐπαίω.

GREEK

SECOND HONOURS PAPER.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Translate into English :—

17

(a) Μὴ τοίνυν κατ' ἀνθρώπων, ἧ δ' ὅς, σκόπει μόνον τοῦτο, εἰ
βούλει ῥᾶον μαθεῖν, ἀλλὰ καὶ κατὰ ζῶων πάντων καὶ φυτῶν, καὶ
συλλήβδην ὅσαπερ ἔχει γένεσιν περὶ πάντων ἰδωμένῳ ἄρ' οὕτως
γίγνεται πάντα, οὐκ ἄλλοθεν ἢ ἐκ τῶν ἐναντίων πᾶ ἐναντία, ὅσοις
τυγχάνει ὃν τοιοῦτόν τι, οἷον τὸ καλὸν τῷ αἰσχυρῷ ἐναντίον που καὶ
δίκαιον ἀδίκῳ, καὶ ἄλλα ὃν μυρία οὕτως ἔχει. τοῦτο οὖν σκεψώμεθα.
ἄρα ἀναγκαῖον ὅσοις ἔστι τι ἐναντίον, μηδαμῶθεν ἄλλοθεν αὐτὸ γίγνεσ-
θαι ἢ ἐκ τοῦ αὐτῷ ἐναντίου

(b) Ἵωμεν δὴ, ἔφη, ἐπὶ ταῦτα ἐφ' ᾧ περ ἐν τῷ ἔμπροσθεν λογώ-
μεν ἡ οὐσία ἧς λόγον δίδομεν τοῦ εἶναι καὶ ἐρωτῶντες καὶ ἀποκρίνο-
μενοι, πότερον ὡσαύτως αἰεὶ ἔχει κατὰ ταῦτα ἢ ἄλλοτ' ἄλλως ; αὐτὸ τὸ
ἴσον, αὐτὸ τὸ καλόν, αὐτὸ ἕκαστον ὃ εἶστιν, τὸ ὃν μὴ ποτε μεταβολὴν
καὶ ἡντιοῦν ἐνδέχεται. ἢ αἰεὶ αὐτῶν ἕκαστον ὃ ἔστι, μονοειδὲς ὃν αὐτὸ
καθ' αὐτό, ὡσαύτως κατὰ ταῦτα ἔχει καὶ οὐδέποτε οὐδαμῇ οὐδαμῶς
ἀλλοίωσιν οὐδεμίαν ἐνδέχεται.

Ὡσαύτως, ἔφη, ἀνάγκη, ὁ Κεβης, κατὰ ταῦτα ἔχειν, ὡ Σώκρατες.

Write a grammatical note on ἧς λόγον δίδομεν τοῦ εἶναι.

(c) Ὁ τοίνυν, ἔφη, βούλομαι δηλῶσαι, ἄθρει. ἔστιν δὲ τοδε, ὅτι
φαίνεται οὐ μόνον ἐκεῖνα τὰ ἐναντία ἄλληλα οὐ διχόμενα, ἀλλὰ καὶ

ὅσα οὐκ ὄντ' ἀλλήλοις ἐναντία ἔχει ἀεὶ τάναντία, οὐδὲ ταῦτα ἔοικε δεχομένοις ἐκείνην τὴν ιδέαν ἢ ἂν τῇ ἐν αὐτοῖς οὐσῃ ἐναντία τῇ, ἀλλ' ἐπιούσης αὐτῆς ἦτοι ἀπολλύμενα ἢ ὑπεκχωροῦντα. ἢ οὐ φήσομεν τὰ τρία καὶ ἀπολείσθαι πρότερον καὶ ἄλλο ὅτιοῦν πείσσεσθαι, πρὶν ὑπομείναι ἐτι τρία ὄντα ἄρτια γενέσθαι;

Πάνυ μὲν οὖν, ἔφη ὁ Κέβης.

Write grammatical notes on—*ἔοικε δεχομένοις, ἀπολλύμενα.*

2. Write short explanatory notes on *four* of the following:—

8

(a) Ἔδοξε τοίνυν μοι, ἡ δ' ὅς, μετὰ ταῦτα, ἐπειδὴ ἀπειρήκη τὰ ὄντα σκοπῶν, δεῖν εὐλαβηθῆναι μὴ πάθοιμι ὅπερ οἱ τὸν ἥλιον ἐκλείποντα θεωροῦντες καὶ σκοποῦμενοι πάσχουσιν.

(b) Εἰ γὰρ ἔροιο με ᾧ ἂν τί ἐν τῷ σώματι ἐγγένηται θερμὸν ἔσται, οὐ τὴν ἀσφαλῆ σοι ἐρῶ ἀπόκρισιν ἐκείνην τὴν ἀμαθῇ . . .

(c) Λύουσι γὰρ οἱ ἔνδεκα Σωκράτη.

(d) Ἐννορκον ἂν ποιησαίμην ὥσπερ Ἀργεῖοι.

(e) Εἶπεν δὴ, ἡ δ' ὅς ὁ Σωκράτης, τὰ μὲν Ἀρμονίας ἡμῖν τῆς Θεβαϊκῆς ἱλαίᾳ πως, ὡς ἔοικε, μετρίως γέγονεν· τί δὲ δὴ τὰ Κάδμου, ἔφη, ὦ Κέβης, πῶς ἱλασόμεθα καὶ τίνι λόγῳ;

(f) Ταῦτα δὴ λογιζόμενος ἄσμενος ἡύρηκέναι ᾧμην διδάσκαλον τῆς αἰτίας περὶ τῶν ὄντων κατὰ νοῦν ἐμαυτῷ, τὸν Ἀναξαγόραν.

Either,

3. “Οὐκ ἄρα, ὦ ἄριστε, ἡμῖν οὐδαμῇ καλῶς ἔχει ψυχὴν ἁρμονίαν τινὰ φαίνει εἶναι.”

10

Trace the argument by which this conclusion was reached.

Or,

How is the Theory of Ideas used to prove the Immortality of the Soul?

4. Translate into English:—

12

(a) Καίτοι τί δὴ ποτε ὦ ἄνδρες Ἀθηναῖοι νομίζετε τὴν μὲν τῶν Παναθηναίων ἑορτὴν καὶ τὴν τῶν Διονυσίων ἀεὶ τοῦ καθήκοντος χρόνου γίγνεσθαι, ἂν τε δεινοὶ λάχωσιν ἂν τε ἰδιῶται οἱ τούτων ἐκατέρων ἐπιμελούμενοι, εἰς ἃ τοσαῦτ' ἀναλίσκεται χρήματα ὅσα οὐδ' εἰς ἓνα τῶν ἀποστόλων, καὶ τοσοῦτον ὄχλον καὶ παρασκευὴν ὅσῃν οὐκ οἶδ' εἴ τι τῶν ἀπάντων ἔχει, τοὺς δ' ἀποστόλους πάντας ὑμῖν ὑστερίζειν τῶν καιρῶν, τὸν εἰς Μεθώνην, τὸν εἰς Παγασάς, τὸν εἰς Ποτεídaian;

Explain the references.

5

(b) “Πῶς γὰρ οἴεσθ'” ἔφην “ὦ ἄνδρες Μεσσήνιοι δυσχερῶς ἀκούειν Ὀλυνθίους, εἴ τίς τι λέγοι κατὰ Φιλίππου κατ' ἐκείνους τοὺς χρόνους, ὅτ' Ἀνθεμούντα μὲν αὐτοῖς ἀφίει, ἥς πάντες οἱ πρότερον Μακεδονίας βασιλεῖς ἀντεποιοῦντο, Ποτεídaian δ' ἐδίδον τοὺς Ἀθηναίων ἀποίκους ἐκβάλλων, καὶ τὴν μὲν ἔχθραν τὴν πρὸς ἡμᾶς αὐτοὺς

ἀνήρητο, τῇ χίραν δ' ἐκείνοις ἐδεδώκει καρποῦσθαι, ἄρα προσδοκᾶν αὐτοὺς τοιαῦτα πείσεσθαι, ἢ λέγοντος ἂν τινος πιστεῦσαι οἰεῖσθε;"

Parse πείσεσθαι. Explain the construction of the words underlined. 5
Explain the references.

(c) Ἄλλ' οὐ φήσετε· ὁ γὰρ οἷς ἂν ἐγὼ ληφθείην, ταῦτα πράττων καὶ κατασκευαζόμενος, οὗτος ἐμοὶ πολεμεῖ, κἂν μήπω βάλλῃ μηδὲ τοξεύῃ. τίσιν οὖν ὑμεῖς κινδυνεύσαίτ' ἂν, εἴ τι γένοιτο; τῷ τὸν Ἑλλησποντον ἀλλοτριωθῆναι, τῷ Μεγάρῳ καὶ τῆς Εὐβοίας τὸν πολέμουνθ' ὑμῖν γενέσθαι κύριον, τῷ Πελοποννησίου τὰ κείνου φρονήσθαι. εἶτα τὸν τοῦτο τὸ μηχάνημ' ἐπὶ τὴν πόλιν ἰστάντα, τοῦτον εἰρήνην ἀγειν ἐγὼ φῶ πρὸς ὑμᾶς;

Write a note on the syntax of the words underlined. Explain the 5
references.

Euther,

5. Estimate Demosthenes' policy as a statesman. 8

Or,

Show from these three speeches where Demosthenes' power as a speaker lay.

6. Translate into English:— 30

(a) ΠΡΩ Δέγε μόνον.

ΣΩ Θεῶν μὲν εἰς ἀνθρώπους δόσις. ὥς γε καταφαίνεται ἐμοί, ποθὲν ἐκ θεῶν ἐρρίφη διὰ τινος Προμηθέως ἅμα φανοτάτῳ τινὶ πυρί. καὶ οἱ μὲν παλαιοί, κρείττονες ἡμῶν καὶ ἐγγυτέρω θεῶν οἰκοῦντες, ταύτην φήμην παρέδοσαν, ὥς ἐξ ἑνὸς μὲν καὶ ἐκ πολλῶν ὄντων τῶν αἰεὶ λεγομένων εἶναι, πέρας δὲ καὶ ἀπειρίαν ἐν αὐτοῖς ξύμφυτον ἐχόντων. δεῖν οὖν ἡμᾶς τούτων οὕτω διακεκοσμημένων αἰεὶ μίαν ἰδέαν περὶ παντὸς ἐκάστοτε θεμένους ζητεῖν· οὐρήσειν γὰρ ἐνούσαν.

(b) Τοῦ μὲν οὖν γράψαι πράττοντα καὶ λέγοντα τὰ βέλτιστά με τῷ δήμῳ διατελεῖν καὶ πρόθυμον εἶναι ποιεῖν ὃ τι δύναμαι ἀγαθόν, καὶ ἐπαινεῖν ἐπὶ τούτοις, ἐν τοῖς πεπολιτευμένοις τὴν κρίσιν εἶναι νομίζω· ἀπὸ γὰρ τούτων ἐξεταζομένων εὐρεθήσεται εἴτε ἀληθῆ περὶ ἐμοῦ γέγραφε Κτησιφῶν ταῦτα καὶ προσήκοντα εἴτε καὶ ψευδῆ· τὸ δὲ μὴ προσγράψαντα ἐπειδὴν τὰς εὐθύνas δῶ στεφανοῦν, καὶ ἀναιπεῖν ἐν τῷ θεάτρῳ τὸν στέφανον κελεῦσαι, κοινωνεῖν μὲν ἡγοῦμαι καὶ τοῦτο τοῖς πεπολιτευμένοις, εἴτε ἀξίως εἰμι τοῦ στεφάνου καὶ τῆς ἀναρρήγσεως τῆς ἐν τούτοις εἴτε καὶ μή, ἔτι μέντοι καὶ τοὺς νόμους δεικτέον εἶναι μοι δοκεῖ, καθ' οὓς ταῦτα γράφειν ἐξῆγ' αὐτῷ.

GREEK.

THIRD HONOURS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

A.

1. Translate into Greek prose:—

30

The great calamity which had fallen on Argyle had this advantage, that it enabled him to show, by proofs not to be mistaken, what manner of man he was. From the day when he quitted Friesland to the day when his followers separated at Kilpatrick, he had never been a free agent. He had borne the responsibility of a long series of measures which his judgment disapproved. Now at length he stood alone. Captivity had restored to him the noblest kind of liberty—the liberty of governing himself in all his words and actions according to his own sense of the right and of the becoming.

2. Translate the first seven lines into Greek iambic verse, or the whole passage into Greek prose:—

20

Oh for a lodge in some vast wilderness,
Some boundless contiguity of shade,
Where rumour of oppression and deceit,
Of unsuccessful or successful war,
Might never reach me more! My ear is pained,
My soul is sick, with every day's report
Of wrong and outrage with which earth is filled
There is no flesh in man's obdurate heart,
It does not feel for man; the natural bond
Of brotherhood is severed as the flax
That falls asunder at the touch of fire.

B.

3. Write notes on the syntax of the words underlined:—

6

- (a) Ἦπόρει ὃ τι χρήσαιο τῷ πράγματι.
(b) Χρῆν σ', εἴπερ ἦσθα μὴ κακός, πέισαντά με
γαμείν γάμον τόνδ', ἀλλὰ μὴ σιγῇ φίλων.
(c) Σὺ δ' εἴ τι μέμφει τῆς ἐμῆς ἀπουσίας,
σχές.
(d) Ἐσθλοῦ γὰρ ἀνδρὸς τῇ δίκῃ θ' ὑπηρετεῖν
καὶ τοὺς κακοὺς δρᾶν πανταχοῦ κακῶς ἀεί.

4. Turn into direct speech in Greek:—

8

(a) Ἐλογίζοντο ὥς, εἰ μὴ μάχοντο, ἀποστήσονται αἱ περιουκίδες πόλεις.

(b) Ἡλπιζον ὑπὸ τῶν παίδων, ἐπειδὴ τελευτήσειαν τὸν βίον, ταφή-
σεσθαι.

(c) Ἐτι δὲ γιγνώσκειν ἔφασαν φθονοῦντας μὲν αὐτοὺς εἴ τί σφισιν
ἀγαθὸν γίνοιτο, ἐφηδομένους δ' εἴ τις συμφορὰ προσπίπτει.

(d) Ἐδήλωσεν ὅτι ἕτοιμοί εἰσι μάχεσθαι εἴ τις ἐξέρχεται.

5. Illustrate the uses of—

Either,

(a) Οὐ μή and μή οὐ.

Or,

(b) the preposition πρός.

6

C.

Not more than THREE questions to be attempted.

6. What do you consider to be the main antecedents to Greek history ? 10

Discuss the justification of the title 'Crete, the forerunner of Greece.'

7. Compare the reforms of Solon and Cleisthenes and the influence of each on subsequent Athenian life. 10

Either,

8. Draw a map of Greece showing the territories of the rival powers at the beginning of the Peloponnesian War. 10

Or,

Give an account of the work of Phidias.

9. What were the main features and districts of Greek colonization ? 10

10. Trace the growth of the Athenian Empire in the fifth century B.C. 10

11. Summarize the chief events in the relations of Syracuse with Greece. 10

GREEK.

FOURTH HONOURS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English :—

10

- (a) Λέξω δέ. μέμψιν οὐτιν' ἀνθρώποις ἔχων,
ἀλλ' ὣν δέδωκ' εὐνοίαν ἐξηγούμενος·
οἳ πρῶτα μὲν βλέποντες ἔβλεπον μάττην,
κλύοντες οὐκ ἤκουον, ἀλλ' ὀνειράτων
ἀλίγκιοι μορφαῖσι τὸν μακρὸν βίον

ἔφυρον εἰκὴ πάντα, κοῦτε πλινθυφεῖς
δόμους προσείλους ἦσαν, οὐ ξυλουργιάν
κατ' ὤρυχες δ' ἔναιον, ὥστ' ἀήσυροι
μύρμηκες, ἄντρων ἐν μυχοῖς ἀνηλίοις.

- (b) Τοιάδε μέντοι τῶν φρενοπλήκτων
βουλευμάτων' ἔπη τ' ἔστιν ἀκοῦσαι.
τί γὰρ ἐλλείπει μὴ οὐ παραπαίειν
ἢ τοῦδ' εὐχή; τί χαλὰ μανιῶν;
ἀλλ' οὖν ὑμεῖς γ' αἱ πημοσύναις
συγκάμνουσαι ταῖς τοῦδε τόπων
μετά ποι χωρεῖτ' ἐκ τῶνδε θοῶς
μὴ φρένας ὑμῶν ἡλιθιώση
βροντῆς μύκημ' ἀτέραμνον.

2. What was the place of Aeschylus in the development of the drama? What are his chief characteristics? 6

3. Translate, with notes on the grammar or subject matter:— 15

- (a) Σὺ τ', Ἰνάχειον σπέρμα, τοὺς ἐμοὺς λόγους
θυμῷ βάλλ', ὥς ἂν τέρματ' ἐκμάθης ὁδοῦ.
(b) Ἰω. Οὐδ' ἔστιν αὐτῷ τῆσδ' ἀποστρεφὴ τύχης;
Πρ. οὐ δῆτα, πλὴν ἐγώ' ἂν ἐκ δεσμῶν λυθείς.
(c) Χαλκόν, σίδηρον, ἀργυρον, χρυσὸν τε τίς
φήσειεν ἂν πάροιθεν ἐξευρεῖν ἐμοῦ;
(d) Κευθμῶν καλύπτει τὸν παλαιγενῆ Κρόνον·
αὐτοῖσι συμμάχοισι.
(e) Ἀπόλεμος ὅδε γ' ὁ πόλεμος, ἄπορα πύριμος· οὐδ'
ἔχω τίς ἂν γενοίμαν.

4. Sketch the life of Aeschylus, and mention any points in which it affects his poetry. 4

5. Translate into English, with grammatical and explanatory notes:— 21

- (a) Ἄγε δὴ φύσιν ἄνδρες ἀμαυρόβιοι, φύλλων γενεᾷ προσόμοιοι,
ὀλιγοδρανέες, πλασμάτα πηλοῦ, σκιοειδέα φύλ' ἀμενηνά,
ἀπτήνες ἐφημέριοι, ταλαοὶ βροτοί, ἀνέρες εἰκελόνηροι,
προσέχετε τὸν νοῦν τοῖς ἀθανάτοις ἡμῖν, τοῖς αἰὲν εἶουσι,
τοῖς αἰθερίοις, τοῖσιν ἀγέρως, τοῖς ἀφθίτα μηδομένοισιν,
ἵν' ἀκούσαντες πάντα παρ' ἡμῶν ὀρθῶς περὶ τῶν μετεώρων,
φύσιν οἰωνῶν γένεσιν τε θεῶν ποταμῶν τ' Ἐρέβους τε Χάους τε
εἰδότες ὀρθῶς παρ' ἐμοῦ Προδικῷ κλάειν εἴπητε τὸ λοιπόν.
- (b) Ἀλλὰ τις ὠκεῖα Μουσάων φάτις
οἷά περ ἵππων ἀμαρυγὰ.
σὺ δὲ πάτερ κτίστορ Αἴτνας,
ζαθέων ἱερῶν ὁμώνυμε,
δὺς ἐμὴν ὅ τ' ἵππερ
τεῖα κεφαλὰ θέλεις
πρόφρων δομεν ἐμὴν τέλιν.

- (c) **Ηρ.** Δίκαι' ἔμοιγε καὶ πάλιν δοκεῖς λέγειν
περὶ τῆς κόρης, κἀγωγε παραδίδωμί σοι.
Πε. τί δαί σὺ φῆς;
Ποσ. τάναντία ψηφίζομαι.
Πε. ἐν τῷ Τριβαλλῶ πᾶν τὸ πρᾶγμα. τί σὺ λέγεις;
Τρι. καλάνι κόρανα καὶ μεγάλα βασιλιναῦ
ὄρνιτο παραδίδωμι.
Ηρ. παραδοῦναι λέγει.
Ποσ. μὰ τὸν Δί' οὐχ οὗτός γε παραδοῦναι λέγει,
εἰ μὴ βαδίζειν γ', ὥσπερ αἱ χελιδόνες.
Πε. οὐκοῦν παραδοῦναι ταῖς χελιδόσιν λέγει.
Ποσ. σφῶν νῦν διαλλάττεσθε καὶ ξυμβαίνετε·
ἐγὼ δ', ἐπειδὴ σφῶν δοκεῖ, σιγήσομαι.

6. Explain the allusions (without translating) in THREE of the following:—

- (a) Ὁ Κεραμεικὸς δέξεται νῶ.
δημόσια γὰρ ἵνα ταφῶμεν,
φήσομεν πρὸς τοὺς στρατηγούς
μαχομένῳ τοῖς πολέμοισιν
ἀποθανεῖν ἐν Ὀρνεαῖς.
- (b) Καὶ μὴν μὰ τὸν Δί' οὐχὶ νυστάζειν γ' ἔτι
ᾧρα ὅτιν ἡμῖν οὐδὲ μελλονικίαν,
ἀλλ' ὡς τάχιστα δεῖ τι δρᾶν.
- (c) Ἄρ' ἐστὶν αὐτηγὶ Νεφелоκοκκυγία,
ἵνα καὶ τὰ Θεογένους τὰ πολλὰ χρήματα
τά τ' Αἰσχίνου γ' ἅπαντα;
- (d) Πρῶτα μὲν γὰρ οὗ μάλιστα πᾶς κριτῆς ἐφίεται,
γλαῦκες ὑμᾶς οὐποτ' ἐπιλείψουσι Λαυριωτικά·
ἀλλ' ἐνοικήσουσιν ἔνδον, ἐν τε τοῖς βαλαντιοῖς
ἐνεοττεύουσιν κἀκλέψουσι μικρὰ κέρματα.
- (e) Ἔστι γὰρ δένδρον πεφυκὸς
ἔκτοπόν τι, Καρδιάς ἀ-
πτέρω, Κλεώνυμος,
χρήσιμον μὲν οὐδὲν, ἄλ-
λως δὲ δειλὸν καὶ μέγα.
τοῦτο τοῦ μὲν ἥρος ἀεὶ
βλαστάνει καὶ συκοφαντεῖ,
τοῦ δὲ χειμῶνος πάλιν τὰς
ἀσπίδας φυλλορροεῖ.

7. Either, What do you consider to have been Aristophanes' purpose in writing this play?

Or, Discuss the function of the Chorus in the *Birds*.

8. Translate into Greek iambs A or B.

30

Or, Translate into Greek prose A and B.

A.

The Isles of Greece ! The Isles of Greece !
 Where burning Sappho loved and sung,
 Where grew the arts of war and peace,—
 Where Delos rose, and Phoebus sprung !
 Eternal summer gilds them yet,
 But all, except their sun, is set ;
 The Scian and the Teian muse,
 The hero's harp, the lover's lute,
 Have found the fame your shores refuse ;
 Their place of birth alone is mute
 To sounds which echo farther west
 Than your sires' ' Islands of the Blest.'

B.

'Tis Greece, but living Greece no more !
 So coldly sweet, so deadly fair,
 We start, for soul is wanting there.
 Hers is the loveliness in death,
 That parts not quite with parting breath :
 But beauty with that fearful bloom,
 That hue which haunts it to the tomb,
 Expression's last receding ray,
 A gilded halo hovering round decay,
 The farewell beam of Feeling pass'd away !
 Spark of that flame, perchance of heavenly birth,
 Which gleams, but warms no more its cherished earth !

GREEK.

FIFTH HONOURS PAPER.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks.

1. Translate into English :—

25

(α) Κίνησις γὰρ αὕτη μεγίστη δὴ τοῖς Ἑλλήσιν ἐγένετο καὶ μέρει
 τινι τῶν βαρβάρων, ὥς δὲ εἰπεῖν, καὶ ἐπὶ πλείστον ἀνθρώπων. τὰ
 γὰρ πρὸ αὐτῶν καὶ τὰ ἔτι παλαιότερά σαφῶς μὲν εὐρεῖν διὰ χρόνου
 πλῆθος ἀδύνατα ἦν· ἐκ δὲ τεκμηρίων ὧν ἐπὶ μακρότατον σκοποῦντί
 μοι πιστεῦσαι ξυμβαίνει οὐ μεγάλα νομίζω γενέσθαι οὔτε κατὰ τοὺς
 πυλέμους οὔτε ἐς τὰ ἄλλα

Write a note on the construction of *δν*.

2

(β) Λακεδαιμονίων γὰρ εἰ ἡ πόλις ἐρημωθείη, λειφθείη δὲ τὰ τε
 ἱερὰ καὶ τῆς κατασκευῆς τὰ ἐδάφη, πολλὴν ἀν οἶμαι ἀπίστίαν τῆς

δυνάμεως προελθόντος πολλοῦ χρόνου τοῖς ἔπειτα πρὸς τὸ κλέος αὐτῶν εἶναι· καίτοι Πελοποννήσου τῶν πέντε τὰς δύο μοίρας νέμονται, τῆς τε ξυμπάσης ἡγούνται καὶ τῶν ἔξω ξυμμάχων πολλῶν· ὁμως δὲ οὔτε ξυνοικισθείσης πόλεως οὔτε ιεροῖς καὶ κατασκευαῖς πολυτελέσι χρησαμένης, κατὰ κώμας δὲ τῷ παλαιῷ τῆς Ἑλλάδος τρόπῳ οἰκισθείσης, φαίνουτ' ἂν ὑποδεστέρα· Ἀθηναίων δὲ τὸ αὐτὸ τοῦτο παθόντων διπλασίαν ἂν τὴν δύναμιν εἰκάζεσθαι ἀπὸ τῆς φανεράς ὄψεως τῆς πόλεως ἢ ἔστιν.

Explain the various uses of the participles underlined above

5

Explain the use of ἂν where it is underlined

(c) Γινόντες δὲ οἱ Ἐπιδάμνιοι οὐδεμίαν σφίσιν ἀπὸ Κερκύρας τιμωρίαν οὔσαν, ἐν ἀπὸρῳ εἶχοντο θέσθαι τὸ παρόν· καὶ πέμψαντες ἐς Δελφοὺς τὸν θεὸν ἐπήρνοντο εἰ παραδοῖεν Κορινθίοις τὴν πόλιν ὡς οἰκισταῖς, καὶ τιμωρίαν τινὰ πειρῶντο ἀπ' αὐτῶν ποιεῖσθαι. ὁ δ' αὐτοῖς ἀνείλε παραδοῦναι καὶ ἡγεμόνας ποιεῖσθαι.

Write a note on the syntax of the words underlined above.

5

Explain the references

(d) Ἐδοξεν οὖν αὐτοῖς ἄνδρας ἐς κελήτιον ἐμβιβάσαντας ἄνευ κηρυκείου προσπέμψαι τοῖς Ἀθηναίοις καὶ πείραν ποιήσασθαι πέμψαντές τε ἔλεγον τοιάδε· Ἐδικεῖτε, ὦ ἄνδρες Ἀθηναῖοι, πολέμου ἄρχοντες καὶ σπονδὰς λύνοντες ἡμῖν γὰρ πολεμίους τοὺς ἡμετέρους τιμωρουμένοις ἐμποδὼν ἵστασθε ὅπλα ἀνταιρόμενοι· εἰ δ' ὑμῖν γνῶρῃ ἐστὶ κωλύειν τε ἡμᾶς ἐπὶ Κέρκυραν ἢ ἄλλοσε εἴ ποι βουλόμεθα πλεῖν, καὶ τὰς σπονδὰς λύετε, ἡμᾶς τούσδε λαβόντες πρώτον χρήσασθε ὡς πολεμίοις."

Explain the references.

3

(e) Ἄρ' ἀξιοί ἐσμεν, ὦ Λακεδαιμόνιοι, καὶ πρᾶθυμιάς ἕνεκα τῆς τοτε καὶ γνώμης ξυνέσεως ἀρχῆς γε ἧς ἔχομεν τοῖς Ἑλλήσι μὴ οὕτως αἶγαν ἐπιφθόνως διακείσθαι, καὶ γὰρ αὐτὴν τήνδε ἐλάβομεν οὐ βιασάμενοι, ἀλλ' ὑμῶν μὲν οὐκ ἐβελησάντων παραμεῖναι πρὸς τὰ ὑπόλοιπα τοῦ βαρβάρου, ἡμῖν δὲ προσεελθόντων τῶν ξυμμάχων καὶ αὐτῶν δεηθέντων ἡγεμόνας καταστήναι· ἐξ αὐτοῦ δὲ τοῦ ἔργου κατηνογκάσθημεν τὸ πρώτον προαγαγεῖν αὐτὴν ἐς τὴνδε, μάλιστα μὲν ὑπὸ δε.ως, ἔπειτα δὲ καὶ τιμῆς, ὅστερον καὶ ὠφελείας.

Explain the genitives underlined above

8

Explain the references.

(f) Ἄλλους γ' ἂν οὖν οἰόμεθα τὰ ἡμέτερα λαβόντας δεῖξαι ἂν μάλιστα εἴ τι μετριάζομεν· ἡμῖν δὲ καὶ ἐκ τοῦ ἐπικεικὸς ἀδοξία τὸ πλεόν ἢ ἔπαινος οὐκ εἰκότως περιέσται· καὶ ἐλασσούμενοι γὰρ ἐν ταῖς ξυμβολαῖαις πρὸς τοὺς ξυμμάχους δίκαις καὶ παρ' ἡμῖν αὐτοῖς ἐν τοῖς ὁμοίοις νόμοις ποιήσαντες τὰς κρίσεις φιλοδικεῖν δοκοῦμεν.

Explain clearly the construction in the first sentence down to μετριάζομεν.

6

Explain the references in the second sentence.

2. *Either,*

What were the causes of the Peloponnesian War ?

9

Or,

Criticize the Athenian policy in making an alliance with Coreyra.

3. *Either,*

Describe the naval battle between Corinth and Coreyra which was fought shortly after the Athenians had entered into alliance with Coreyra.

7

Or,

Describe the early operations against Potidaea.

4. Translate into Greek :—

30

Either,

(a) In this character of the Americans, a love of freedom is the predominating feature which marks and distinguishes the whole; and as an ardent is always a jealous affection, your Colonies become suspicious, restive and untractable, whenever they see the least attempt to wrest from them by force, or shuffle from them by chicane, what they think the only advantage worth living for. This fierce spirit of liberty is stronger in the English Colonies probably than in any other people of the earth; and this from a great variety of powerful causes; which, to understand the true temper of their minds and the direction which this spirit takes, it will not be amiss to lay open somewhat more largely.

Or,

(b) The last cause of this disobedient spirit in the Colonies is hardly less powerful than the rest, as it is not merely moral, but laid deep in the natural constitution of things. Three thousand miles of ocean lie between you and them. No contrivance can prevent the effect of this distance in weakening government. Seas roll, and months pass, between the order and the execution; and the want of a speedy explanation of a single point is enough to defeat a whole system. You have indeed winged ministers of vengeance, who carry your bolts in their pounces to the remotest verge of the sea. But there a power steps in, that limits the arrogance of raging passions and furious elements, and says, 'So far shalt thou go and no farther.'

GREEK.

SIXTH HONOURS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

A.

1. Translate into English :—

(a) Ὡς ὥρμαινε μένων, ὃ δέ οἱ σχεδὸν ἦλθεν Ἀχιλλεύς
ἴσος Ἐνναλίῳ, κορυθαῖκι πτολεμιστῇ,

20

σειών Πηληϊάδα μελίην κατὰ δεξιὸν ὦμον
 δεινὴν· ἀμφὶ δὲ χαλκὸς ἐλάμπετο εἵκελος αὐγῇ
 ἢ πυρὸς αἰθομένοιο ἢ ἡελίου ἀνιόντος.
 Ἔκτορα δ', ὡς ἐνόησεν, ἔλε τρόμος· οὐδ' ἄρ' ἔτ' ἔτλη
 αὐθι μένειν, ὁπίσω δὲ πύλας λίπε, βῆ δὲ φοβηθείς.
 Πηλεΐδης δ' ἐπόρουσε ποσὶ κραιπνοῖσι πεποιθώς.
 ἥντε κίρκος ὄρεσφιν, ἐλαφρότατος πετεηνῶν,
 ῥῆϊδίως οἴμησε μετὰ τρήρωνα πέλειαν,
 ἢ δέ θ' ὑπαιθα φοβεῖται, ὃ δ' ἐγγύθεν ὀξὺ λεληκώς
 ταρφέ' ἐπαύσσει, ἐλέειν τέ ἐθυμὸς ἀνώγει.
 ὡς ἄρ' ὃ γ' ἐμμεμῶς ἰθὺς πέτετο, τρέσε δ' Ἔκτωρ
 τεῖχος ὑπο Τρώων, λαυσηρὰ δὲ γύναι' ἐνώμα.
 οἱ δὲ παρὰ σκοπιὴν καὶ ἐρινεὸν ἠνεμοέοντα
 τεύχεος αἶεν ὑπὲκ κατ' ἀμαξίτων ἐσσεύοντο,
 κρουνὴ δ' ἴκανον καλλιρρόω· εἴθα δὲ πηγαὶ
 δοιαί ἀναΐσσουνι Σκαμάνδρου δινηέντος.
 ἦ μὲν γάρ θ' ὕδατι λιαρῶ ῥέει, ἀμφὶ δὲ καπνὸς
 γίνεταί ἐξ αὐτῆς ὡς εἰ πυρὸς αἰθομένοιο·
 ἢ δ' ἐτέρη θέρει προρέει εἰκυῖα χαλάζῃ,
 ἢ χιόνι ψυχρῇ, ἢ ἐξ ὕδατος κρυστάλλῳ.

(b) Ὡρυσσον δὲ ᾧδε, δασύμενοι τὸν χῶρον οἱ βάρβαροι κατὰ
 ἔθνεα, κατὰ Σιώνην πόλιν σχοινοτενὲς ποιησάμενοι· ἐπεὶ δὲ ἐγένετο
 βαθεῖα ἢ διώρυξ, οἱ μὲν κατωτάτα ἐστεῶτες ὥρυσσον, ἕτεροι δὲ παρε-
 δίδοσαν τὸν αἰεὶ ἐξορυσσόμενον χοῦν ἄλλοισι κατύπερθε ἐστεῶσι ἐπὶ
 βάθρων, οἱ δ' αὖ ἐκδεκόμενοι ἑτεροισι, ἕως ἀπίκοντο ἐς τοὺς ἀνωτάτω,
 οὗτοι δὲ ἐξεφόρεόν τε καὶ ἐξέβαλλον. τοῖσι μὲν νῦν ἄλλοισι, πλὴν
 Φοινίκων, κατασπρηγνύμενοι οἱ κρημνοὶ τοῦ ὀρύγματος πόνον διπλήσιον
 παρέιχον· ἅτε γὰρ τοῦ τε ἄνω στόματος καὶ τοῦ κάτω τὰ αὐτὰ μέτρα
 ποιευμένων, ἐμελλέ σφι τοιοῦτο ἀποβήσεσθαι. οἱ δὲ Φοινίκες ἰοφίην
 ἐν τε τοῖσι ἄλλοισι ἔργοισι ἀποδείκνυνται καὶ δὴ καὶ ἐν ἐκείνῳ.
 ἀπολαχόντες γὰρ μόριον, ὅσον αὐτοῖσι ἐπέβαλλε ὥρυσσον τὸ μὲν ἄνω
 στόμα τῆς διώρυχος ποιεῖντες διπλήσιον ἢ ὅσον ἔδει αὐτὴν τὴν διώ-
 ρυχα γενέσθαι. προβαίνοντος δὲ τοῦ ἔργου συνῆγον αἰεὶ· κάτω τε δὴ
 ἐγένετο, καὶ ἐξισούτω τοῖσι ἄλλοισι τὸ ἔργον. ἐνθαῦτα δὴ λειψὼν
 ἐστὶ, ἵνα σφι ἀγορῇ τε ἐγένετο καὶ πρητήριον· σῆτος δὲ σφισι πολλὸς
 ἐφοῖτα ἐπ' τῆς Ἀσίας ἀληλεσμένος.

• B.

Not more than THREE questions to be answered.

- | | |
|--|----|
| 2. Discuss the literary integrity of the <i>Iliad</i> . | 10 |
| 3. Compare the historical merit of Herodotus and Thucydides. | 10 |
| 4. Sketch the origin and development of Greek Drama up to Aeschylus. | 10 |
| 5. Compare, with illustrations, the Old and New Comedy. | 10 |
| 6. What do you know of—Sappho, Phrynichus, Antiphon? | 10 |

C.

PHILOLOGY.

Do THREE questions only.

7. Give an account of the Greek genitive case, its forms and uses, 10
with their origin.
8. Explain and illustrate Grimm's law and Verner's law by refer- 10
ence to Sanskrit, Greek and English words.
9. Give some account of Ablaut, and the use of Analogy. 10
10. Comment on four of the following—*θεάων, ἵπποι, ἡδεῖ, τὰ σῖτα,* 10
να, ὅμμι, ν
11. What light does philology throw upon the 'Homeric problem'? 10

GREEK.

FIRST PASS PAPER.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Translate into English:— 12

(a) Βῆ δ' ἰθὺς προθύροιο, νεμεσσήθη δ' ἐνὶ θυμῷ
ξείνον δητὰ θύρησιν ἐφ' ἐστάμεν· ἐγγυθὶ δὲ στὰς
χεῖρ' ἔλε δεξιτερὴν καὶ ἐδέξατο χάλκεον ἔγχος,
καὶ μιν φωνήσας ἔπεα πτερόεντα προσηύδα·
“Χαῖρε, ξεῖνε, παρ' ἅμμι φιλήσεται· αὐτὰρ ἔπειτα
δείπνου πασσάμενος μυθήσεται ὅττιό σε χρή·”

Write notes on the form or syntax of the words underlined above. 12
Scan the last three lines.

(b) Τὴν δ' αὖ Τηλέμαχος πεπνυμένος ἀντίον ἦδ' α.
“μῆτερ ἐμή, τί τ' ἄρα φθονέεις ἐρίηρον αἰοῖδον
τέρπειν ὅππῃ οἱ νόος ὀρνυται; οὐ νύ τ' αἰοῖδοι
αἴτιοι ἀλλὰ ποθι Ζεὺς αἴτιος, ὃς τε δίδωσιν
ἀνδράσιν ἀλφειοτῆσιν, ὅπως ἐθέλῃσιν, ἐκάστω.
τούτῳ δ' οὐ νέμεσις Δαναῶν κακὸν οἶτον ἀεῖδεν·
τὴν γὰρ αἰοῖδην μᾶλλον ἐπικλείουσ' ἄνθρωποι,
ἣ τις ἀκουόντεσσι νεωτάτῃ ἀμφιπέληται·”

Parse the words underlined above. Write a note on the meaning 3
of ἀλφειοτῆσιν.

(c) ἰστὸν δ' εἰλάτινον κοίλης ἐντοσθε μεσόδομης
στήσαν ἀείραντες, κατὰ δὲ προτόνοισιν ἔδῃσαν,
ἔλκον δ' ἰστία λευκὰ ἐυστρέπτοισι βοεῦσιν.

ἔπρησεν δ' ἄνεμος μέσον ἱστίον, ἀμφὶ δὲ κῦμα
στεῖρην πορφύρεον μεγάλ' ἔαχε νηὸς ἰούιης·
ἣ δ' ἔθεεν κατὰ κῦμα διαπρήσσουσα κέλευθον.

Write explanatory notes on the words underlined above.

4

2. Give a brief outline of the contents of Book I or II of the *Odyssey*.

4

3. Translate into English:—

10

(a) Οὕτω γὰρ, ὦ παῖ, χρὴ διὰ στέρνων ἔχειν,
γνώμης πατρῴας πάντ' ὀπισθεν ἐπιστάιναι.
τούτου γὰρ οὐνεκ' ἄνδρες εὐχονται γονᾶς
κατηκόους φύσαντες ἐν δόμοις ἔχειν,
ὥς καὶ τὸν ἐχθρὸν ἀνταμύνωνται κακοῖς,
καὶ τὸν φίλον τιμῶσιν ἐξ ἴσου πατρὶ.
ὅστις δ' ἀνωδέλητα φυτεύει τέκνα,
τὶ τόνδ' ἂν εἴποις ἄλλο πλὴν αὐτῷ πόνους
φῦσαι, παλὺν δὲ τοῖσιν ἐχθροῖσιν γέλων;

Write grammatical notes on the words underlined. Scan the first line.

5

(b) Πολλὰ τὰ δεινὰ κοῦδὲν ἀνθρώπου δεινότερον πέλει·
τοῦτο γὰρ πολιοῦ πέραν πόντου χειμερίῳ νότῳ
χωρεῖ, περιβρυχίοισιν
περῶν ὑπ' οἰδμασιν,
θεῶν τε τὰν ὑπερτάταν, Γᾶν
ἄφθιτον, ἀκαμάταν ἀποτρύνεται,
ἰλλομένων ἀρότρων ἔτος εἰς ἔτος, ἱππέῳ γένει πολεῦων.

4. Summarize critically the plot of the *Antigone*.

4

5. Write notes on, and translate:—

11

(a) Οἷμοι ταλαίνης. ὥς ὑπερδέδοικά σου.
(b) Μήτοι, κασιγνήτη, μ' ἀτιμύσῃς τὸ μὴ οὖ
θανεῖν τε σὺν σοὶ τὸν θανόντα θ' ἀγνίσαι.

Scan the first line.

(c) 'Αλλ' εἰ μὲν οὖν τὰδ' ἐστὶν ἐν θεοῖς καλά,
παθόντες ἂν ξυγγνοῖμεν ἡμαρτηκότες.

6. What are the essential parts of a Greek play? Illustrate from the *Antigone*.

5

7. Translate into English:—

30

(a) Οἶσω δὲ πένθος οὐκ ἐτήσιον τὸ σόν,
ἀλλ' ἔστ' ἂν αἰὼν οὐμὸς ἀντέχῃ, γύναι,
στρυγῶν μὲν ἧ μ' ἔτικτεν. ἐχθαίρων δ' ἐμὸν
πατέρα· λόγῳ γὰρ ἦσαν οὐκ ἔργῳ φίλοι.
σὺ δ' ἀντιδοῦσα τῆς ἐμῆς τὰ φίλτατα
ψυχῆς ἔσωσας. ἄρά μοι στένειν πάρα
τοιᾶσδ' ἀμαρτάνοντι συζύγου σέθεν;
παύσω δὲ κώμους συμποτῶν θ' ὁμιλίας
στεφάνους τε μοῦσάν θ' ἣ κατεῖχ' ἐμοὺς δόμους.

- (b) Ηρ. Οἴμοι· πρὶν ὥς χροὴν σφ' ἐξ ἐμῆς θανεῖν χερὸς ;
 Υλ. κὰν σοῦ στραφεῖη θυμός, εἰ τὸ πᾶν μάθοις.
 Ηρ. δεινοῦ λόγου κατῆρξας· εἰπὲ δ' ἡ νοεῖς.
 Υλ. ἅπαν τὸ χροῆμ', ἤμαρτε χρηστὰ μωμένη.
 Ηρ. χρήστ', ὦ κύκιστε, πατέρα σὸν κτείνασα δρᾶ ;
 Υλ. στέργῃμα γὰρ δοκοῦσα προσβαλεῖν σέθεν,
 ἀπήμπλαχ', ὥς προσεῖδε τοὺς ἔνδον γαίμους.
 Ηρ. καὶ τίς τσοσούτο· φαρμακεὺς Τραχινίων ;
 Υλ. Νέυσος πάλαι Κένταυρος ἐξέπεισέ νιν
 τοιῷδε φίλτρῳ τὸν σὸν ἐκμήναι πόθον.

GREEK.

SECOND PASS PAPER.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks.

1. Translate into English:—

17

(α) Ἡ καὶ δοκοῦσί σοι πάντες ἔχιν διδόναι λόγον περὶ τούτων ὧν
 ἰνυδὴ ἐλέγομεν ;

Βουλοίμην μεντᾶν, ἔφη ὁ Σιμμίας· ἀλλὰ πολὺ μᾶλλον φοβοῦμαι μὴ
 αὖριον τηνικάδε οὐκέτι ἢ ἀνθρώπων οὐδεὶς ἀξίως οἷός τε τοῦτο ποιῆσαι.

Οὐκ ἄρα δοκοῦσί σοι ἐπίστασθαί γε, ἔφη, ὦ Σιμμία, πάντες αὐτά ;

Οὐδαμῶς.

Ἀναμνησκονται ἄρα ἃ ποτε ἔμαθαν ;

Ἀνάγκη.

Πότε λαβοῦσαι αἱ ψυχαὶ ἡμῶν τὴν ἐπιστήμην αὐτῶν ; οὐ γὰρ διὴ
 ἅφ' οὗ γε ἄνθρωποι γεγόναμεν.

Οὐ δῆτα.

Πρότερον ἄρα.

Ναί.

Ἦσαν ἄρα, ὦ Σιμμία, αἱ ψυχαὶ καὶ πρότερον, πρὶν εἶναι ἐν ἀνθρώ-
 που εἶδει, χωρὶς σωμάτων, καὶ φρόνησιν ἔιχον.

(b) Αἰσθάνη οὖν, ἡ δ' ὅς, ὅτι ταῦτά σοι συμβαίνει λέγειν, ὅταν
 φῆς μὲν εἶναι τὴν ψυχὴν πρὶν καὶ εἰς ἀνθρώπου εἰδός τε καὶ σῶμα
 ἀφικέσθαι. εἶναι δὲ αὐτὴν συγκεκλιμένην ἐκ τῶν οὐδέπω ὄντων ; οὐ γὰρ
 δὴ ἀρμονία γέ σοι ταῦτόν ἐστιν ὃ ἀπεικάζεις, ἀλλὰ πρότερον καὶ ἡ
 λύρα καὶ αἱ χορδαὶ καὶ οἱ φθόγγοι ἔτι ἀνάρμοστοι ὄντες γίνονται,
 τελευταῖον δὲ πάντων συνίσταται ἡ ἀρμονία καὶ πρῶτον ἀπόλλυται.

Write grammatical notes on ἡ δ' ὅς, and ὃ ἀπεικάζεις.

(c) Τρίτος δὲ ποταμὸς τούτων κατὰ μέσον ἐκβάλλει, καὶ ἐγγὺς τῆς ἐκβολῆς ἐκπίπτει εἰς τόπον μέγα πυρὶ πολλῷ καόμενον, καὶ λίμνην ποιεῖ μείζω τῆς παρ' ἡμῖν θαλάττης, ζέουσιν ὕδατος καὶ πηλοῦ· ἐντεῦθεν δὲ χωρεῖ κύκλῳ θολερὸς καὶ πηλώδης, περιελιττόμενος δὲ τῇ γῇ ἄλλοσέ τε ἀφικνεῖται καὶ παρ' ἔσχατα τῆς Ἀχερουσιάδος λίμνης, οὐ συμμειγνύμενος τῷ ὕδατι· περιελιχθεὶς δὲ πολλάκις ὑπὸ γῆς ἐμβάλλει κατωτέρω τοῦ Ταρτάρου· οὗτος δ' ἐστὶν ὃν ἐπονομάζουσιν Πυριφλεγέθοντα, οὗ καὶ οἱ ῥύακες ἀποσπάσματα ἀναφυσῶσιν ὅπη ἂν τύχῃσι τῆς γῆς.

Write a grammatical note on τοῦ Ταρτάρου and ἐκβάλλει.

2. *Either*, Discuss :—'Ἡ μάθησις οὐκ ἄλλο τι ἢ ἀνάνησις τυγχάνει οὐσα. 9
Or, How does Socrates regard the relation of the Soul and the Body?

3. *Either*, Write a vivid account of Socrates' last day as it is depicted in the *Phaedo*. 9

Or, Give a description of the earth and the fate of souls after death as recorded in the closing sections.

4. Translate into English :—

12

(a) Πρῶτον μὲν οὖν οὐκ ἀθυμητόν ᾧ ἄνδρες Ἀθηναῖοι τοῖς παροῦσι πράγμασιν, οὐδ' εἰ πανυ φαύλως ἔχειν δοκεῖ. ὃ γάρ ἐστι χεῖριστον αὐτῶν ἐκ τοῦ παρεληλυθότος χρόνου, τοῦτο πρὸς τὰ μέλλοντα βέλτιστον ὑπάρχει. τί οὖν ἐστι τοῦτο; ὅτι οὐδὲν ᾧ ἄνδρες Ἀθηναῖοι τῶν δεόντων ποιούντων ὑμῶν κακῶς τὰ πράγματα ἔχει· ἐπεὶ τοι, εἰ πάνθ' ἃ προσήκε πραττόντων οὕτως εἶχεν, οὐδ' ἂν ἐλπίς ἦν αὐτὰ βελτίω γενέσθαι.

Write a note on the syntax of the words underlined.

3

(b) Ἐκεῖνα μὲν ἅπαντα νόμῳ τέτακται, καὶ πρόνιδεν ἕκαστος ὑμῶν ἐκ πολλοῦ τίς χορηγὸς ἢ γυμνασάρχος τῆς φυλῆς, πότε καὶ παρὰ τοῦ καὶ τί λαβόντα τί δέοι ποιεῖν, οὐδὲν ἀνεξέταστον οὐδ' ἀόριστον ἐν τούτοις ἡμέληται, ἐν δὲ τοῖς περὶ τοῦ πολέμου καὶ τῇ τούτου παρασκευῇ ἄτακτα ἀδιόρθωτα ἀόριστα ἅπαντα. τοιγαροῦν ἅμα ἀκηκόαμέν τι καὶ τριηράρχους καθίσταμεν καὶ τούτοις ἀντιδόσεις ποιούμεθα καὶ περὶ χρημάτων πόρου σκοποῦμεν, καὶ μετὰ ταῦτα ἐμβαίνειν τοὺς μετοίκους ἔδοξε καὶ τοὺς χωρὶς οἰκοῦντας, εἴτ' αὐτοὺς πάλιν ἀντεμβιβάζειν, εἴτ' ἐν ὧσιν αὐτὰ μέλλεται, προαπόλῳε τὸ ἐφ' ὃ ἂν ἐκπλέωμεν· τὸν γὰρ τοῦ πράττειν χρόνον εἰς τὸ παρασκευάζεσθαι ἀναλίσκομεν, οἱ δὲ τῶν πραγμάτων καιροὶ σὺ μένουσι τὴν ἡμετέραν βραδυτῆτα καὶ εἰρωνείαν.

Write an explanatory note on the words underlined.

5

(c) Ἐγὼ τοίνυν ᾧ ἄνδρες Ἀθηναῖοι λογίζομαι, τίνων ὁ Φίλιππος κύριος πρῶτον μετὰ τὴν εἰρήνην κατέστη; Πυλῶν καὶ τῶν ἐν Φωκεύσι πραγμάτων. τί οὖν; πῶς τούτοις ἐχρήσατο; ἃ Θηβαῖοις συμφέρει καὶ οὐχ ἃ τῇ πόλει, ηῤῃττειν προεῖλετο.

Explain the references.

(d) Καὶ τοῦθ' ὁρῶντες οἱ Ἕλληνες ἅπαντες καὶ ἀκούοντες, οὐ πεμπομεν πρέσβεις περὶ τούτων πρὸς ἀλλήλους ἀγανακτοῦμεν· οὕτω δὲ κακῶς διακείμεθα καὶ διορωρύγεθα κατὰ πόλεις, ὥστ' ἄχρι τῆς τῆμερον ἡμέρας οὐδὲν οὔτε τῶν συμφερόντων οὔτε τῶν δεόντων πράξαι δυνάμεθα, οὐδὲ συστήναι, οὐδὲ κοινωνίαν βοηθείας καὶ φιλίας οὐδεμίαν ποιήσασθαι. ἀλλὰ μείζω γινόμενον τὸν ἄνθρωπον περιορῶμεν, τὸν χρόνον κερδᾶναι τοῦτον ὃν ἄλλος ἀπόλλυται ἕκαστος ἐγνωκῶς (ὥς γ' ἐμοὶ δοκεῖ), οὐχ, ὅπως σωθήσεται τὰ τῶν Ἑλλήνων, σκοπῶν οὐδὲ πράττων· ἐπεὶ, ὅτι γ' ὥσπερ περίοδος ἢ καταβολὴ πυρετοῦ ἢ ἄλλου τινὸς κακοῦ καὶ τῷ πάνυ πόρρω δοκοῦντι νῦν ἀφεστάναι προσέρχεται, οὐδεὶς ἀγν. εἰ.

Write notes on the syntax of the words underlined. Comment on the form διορωρύγεθα. Explain the references. 5

5. *Either*. What were Demosthenes' proposals in the *First Philippic*? 6

Or, Give an outline of the events which occurred between the *First Philippic* and the Peace.

6. Translate into English:—

30

(a) Τοῦ δ' ἐπιγιννομένου χειμῶνος ἡ νόσος τὸ δευτερον ἐπέεσε τοῖς Ἀθηναίοις, ἐκλιπούσα μὲν οὐδένα χρόνον τὸ παντάπασι, ἐγένετο δὲ τις ὕμῳς διοκωχὴ. παρέμεινε δὲ τὸ μὲν ὕστερον οὐκ ἔλασσον ἐνιαυτοῦ, τὸ δὲ πρότερον καὶ δύο ἔτη, ὥστε Ἀθηναίων γε μὴ εἶναι ὅτι μᾶλλον ἐκάκωσε τὴν δύναμιν. τετρακοσίων ὀπλιτῶν καὶ τετρακισχιλίων οὐκ ἔλασσους ἀπέθανον ἐκ τῶν τάξεων καὶ τριακοσίων ἱππέων, τοῦ δὲ ἄλλου ὄχλου ἀνεξεύρετος ἀριθμός. ἐγένοντο δὲ καὶ οἱ πολλοὶ τότε σεισμοὶ τῆς γῆς, ἐν τε Ἀθήναις καὶ ἐν Εὐβοίᾳ καὶ ἐν Βασιτοῖς, καὶ μάλιστα ἐν Ὀρχομενῷ τῷ Βοιωτίῳ.

(b) Τὰ μὲν δὴ ῥηθέντα, ὦ Σώκратες, ὑπὸ τοῦ παλαιοῦ Κριτίου κατ' ἀκοὴν τὴν Σόλωνος, ὡς συντόμως εἰπεῖν, ἀκήκοας· λέγοντος δὲ δὴ χθὲς σοῦ περὶ πολιτείας καὶ τῶν ἀνδρῶν οὓς ἔλεγες, ἐθαύμαζον ἀναμνησκόμενοι αὐτὰ ἃ νῦν λέγω, κατανοῶν ὡς δαιμονίως ἕκ τινος τύχης οὐκ ἀπὸ σκοποῦ ξυνηνέχθης τὰ πολλὰ οἷς Σόλων εἶπεν. οὐ μὲν ἐβουλήθην παραχρῆμα εἰπεῖν· διὰ χρόνου γὰρ οὐχ ἱκανῶς ἐμνημόνην. ἐνενόησα οὖν ὅτι χρεὼν εἶη μέ πρὸς ἑμαυτὸν πρῶτον ἱκανῶς πόντα ἀναλαβόντα λέγειν οὕτως.

GREEK.

THIRD PASS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

A. COMPOSITION.

Translate into Greek :—

1. If this be the case, ask yourselves this question, Will they be content in such a state of slavery? If not, look to the consequences. Reflect how you are to govern a people, who think they ought to be free, and think they are not. Your scheme yields no revenue; it yields nothing but discontent, disorder, disobedience; and such is the state of America, that after wading up to your eyes in blood, you could only end just where you began, that is, to tax where no revenue is to be found; to—my voice fails me; my inclination indeed carries me no further—all is confusion beyond it. 25

2 Argyle's great error was that he did not resolutely refuse to accept the name without the power of a general. Had he remained quietly at his retreat in Friesland, he would in a few years have been recalled with honour to his country. Had he conducted his expedition according to his own views, and carried with him no followers but such as were prepared implicitly to obey all his orders, he might possibly have effected something great. For what he wanted as a captain seems to have been not courage nor activity, nor skill, but simple authority. He should have known that of all wants this is the most fatal. 25

B. GRAMMAR.

3. Conjugate in full the imperfect indicative active of εἶμι, and the pluperfect indicative active of οἶδα. 4

4. Decline in full two of the following nouns :—πῆχυς, ναῦς, and βοῦς. 4

5. Give the principal parts of the following verbs, active and passive :—αἰρέω, ἀνολγνυμι, ἀποκτείνω, τρέφω. 6

Either,

6. What are the chief uses of the accusative case? Give examples. 6

Or,

Illustrate the different meanings and uses of the preposition παρά

C. GREEK HISTORY.

Not more than THREE questions to be attempted.

7. Consider the influence of geographical conditions upon the history of Greece. 10

8. Describe the course of events in Greece between 499 and 478 B.C. 10

9. Write a short life of any two of the following :—Alcibiades, Cimon, Demosthenes (General), Epaminondas, Lysander, Theramenes. 10

10. Describe the main features of Athenian life and thought in the age of Pericles.

11. What do you know of any *four* of the following:—Eisphora, 10
Helots, Hypaspistae, Olympic Games, Phratries, Propylaea?

12. Give an account of the Hegemony of Thebes. 10

FRENCH.

FIRST HONOURS PAPER.

Paper-setters { REV. FATHER E. FRANCOLTE, S.J.
T. S. STERLING, ESQ., M.A.
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Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. (a) Name the *three* elements of French Verse. Which is the French 5
Standard Metre? Show clearly how you are to count the syllables in the following line:—

‘A vous de mépriser ce qu’un autre âge envie.’

(b) Point out, in any of the extracts of Question 2, a perfect rhyme, 3
an elision, a hiatus, an *enjambement*, and, in any of the proper lines, the *caesura*.

(c) What do you know about the *Lyric Stanza, Sonnet, or Ballade*? 2
Is there any illustration of this in Question 2?

2. Translate *five* extracts out of the following:— 10

(a) C’est ainsi qu’achevait l’aveugle en soupirant,
Et près des bois marchait, faible, et sur Une pierre
S’asseyait. Trois pasteurs, enfants de cette terre,
Le suivaient, accourus aux abois turbulents
Des molosses, gardiens de leurs troupeaux bélants.

(*L’Aveugle*, by . . . ?)

(b) Pauvres gens! l’impôt nous dépouille:
Nous n’avons, *accablés* de maux,
Pour nous, ton père et six marmots,
Rien que ta bêche et ma quenouille.
Lève-toi, Jacques, lève-toi:
Voici venir l’huissier du roi.

(*Jacques*, by . . . ?)

(c) Quand ta voix céleste prélude
Aux silences des belles nuits,
Barde ailé de ma solitude,
Tu ne sais pas que je te suis!
Tu ne sais pas que mon oreille,
Suspendue à ta douce voix,
De l’harmonieuse merveille
S’enivre longtemps sous les bois!

(*Le Rossignol*, by . . . ?)

- (d) Or, le peuple attendait, et, craignant son courroux.
 Priait *sans* regarder le Mont du Dieu jaloux;
 Car, s'il levait les yeux, les *flancs* noirs du nuage
 Roulaient et redoublaient les *foudres* de l'orage
 Et le feu des éclairs, avouglant les regards,
 Enchaînait tous les fronts courbés de toutes parts.
 Bientôt le haut du Mont reparut sans Moïse.—
 Il fut pleuré.—

(*Moïse*, by . . . ?)

- (e) Donnez ! Il vient un jour où la terre nous laisse ;
 Vos aumônes là-haut vous font *une* richesse,
 Donnez, afin qu'on dise : 'Il a pitié de nous !'
 Afin que l'indigent *que* glacent les tempêtes,
 Que le pauvre qui souffre à côté de vos fêtes,
 Au seuil de vos palais fixe un œil moins jaloux.

(*Les Feuilles d'automne : La Charité*, by . . .)

- (f) *Je voudrais* vivre, aimer, m'accoutumer aux hommes,
 Chercher un peu de joie et n'y pas trop compter,
 Faire ce qu'on a fait, être ce que nous *sommes*,
 Et regarder le ciel sans m'en inquiéter.
 Je ne *puis*. Malgré moi l'infini me tourmente.
 Je n'y saurais songer sans crainte et sans espoir.

(*L'Espoir en Dieu*, by . . .)

- (g) A l'âge où nous errions, *livre en main*, sous la haie,
 Tout prêts à dépenser notre cœur et nos jours,
 On dit que vous savez ce que vaut *en* monnaie
 L'heureux temps des chansons, des songes, des amours.

Plus haut dans le mépris des faux biens qu'on adore,
 Plus haut dans ces combats *dont* le ciel est l'enjeu,
 plus haut dans vos amours. Montez, montez encore
 Sur cette échelle d'or qui va se perdre en Dieu.

(*A la Jeunesse*, by . . . ?)

3. (a) N.B.—*Mention the authors of only FIVE of the above extracts.* 6
 Give a short biography of two of them, with a list of their chief literary productions.

(b) Who is *l'aveugle* mentioned in 2, a ? Write short notes on :— 4
molosses (2, a), *Mont* (2, d). Who was *E'p'icure*, alluded to in *L'Espoir en Dieu* (2, f) ?

(c) What do you know about the following :—*Edipe*, les paladins, 4
 le cirque de Marboré, troubadours, Obéron, basquine, Messidor, hécatombes ?

4. (a) Parse *six* of the words or phrases italicised in Question 2. 6

(b) Comment on the gender of :—*gens*, *foudre*. 1

(c) Account for the plural *silences* (2, c). 6

(d) Give the principal parts of *s'asseyait* (also conjugate the verb 1
 in the imperative mood) and *venir* (conjugate the pluperfect subjunctive).

(e) Give two meanings of *bois* and *achever* ; and distinguish between 2
merveille and *vermeille*, *courroux* and *colère*.

(f) Write out synonyms for :—*barde* (2, c) ; *flancs* (2, d) ; *lais se* 1
 (2, e).

(g) Give a noun corresponding to *soupirant* (2, a), and a verb corresponding to *aboïs* (2, a). 1

5. Translate *two* of the following passages :— 8

(a) *Cyrano*, *Que l'instant entre tous les instants soit béni,*
Où cessant d'oublier qu'humblement je repose,
Vous venez jusqu'ici pour me dire . . . me dire ? . . .

Roxane, qui s'est démasquée. Mais tout d'abord, merci, car ce drôle,
 ce fat

Qu'au brave jeu d'épée, hier, vous avez fait mal,
 C'est lui qu'un grand seigneur . . . épris de moi . . .

Cyrano. Do Guiche !

Roxane, baissant les yeux. Cherchait à m'imposer . . . comme mari . . .

(b) *Roxane.* Mais il faut qu'on serve et découpe, et dé sosse
 Regardez mon cocher d'un peu plus près, messieurs,
 Et vous reconnaîtrez un homme précieux :
 Chaque sauce sera, si l'on veut, réchauffée !

Les cadets, se ruant sur le carrosse. C'est Raguenau !

Acclamations. Oh ! Oh !

Roxane, les suivant des yeux. Pauvres gens !

Cyrano, lui baisant la main. Bonne fée !

Raguenau debout sur le siège comme un charlatan en place publique. Messieurs !

. . . (*Enthousiasme.*)

Les cadets. Bravo ! Bravo !

(c) *Cyrano, de plus en plus pâle et luttant contre la douleur.*
 Samedi, dix-neuf.

Ayant mangé huit fois du raisiné de Cette,
 Le roi fut pris de fièvre ; à deux coups de lancette
 Son mal fut condamné pour lèse-majesté.
 Et cet auguste poulx n'a plus fébricité !
 Au grand, chez la reine, on a brûlé, dimanche,
 Sept cent soixante-trois flambeaux de cire blanche ;
 Nos troupes ont battu, dit-on, Jean l'Autrichien ;
 On a pendu quatre sorciers : . . .

6. (a) To what School does Rostand belong ? What do you think of the merits and demerits of his drama *Cyrano de Bergerac* ? Give reasons for your answer. Point out in the above some very poor lines. 5

(b) Account for the exclamation 'pauvres gens !' in connection with facts before related (5, b) 1

7. (a) When does *cent* take the mark of the plural ? Contrast with 5, c, third line from the end. 1

(b) Distinguish between *béni* and *bénit* (5, a) ; *troupe*, *troupes* (5, c). 1

(c) Conjugate *il faut* (5, b) in all its moods and tenses. 2

8. Translate into idiomatic English *two* of the following passages :— 30

(a) *Polyeucte.* Je considère plus ; je sais mes avantages,
 Et l'espoir que sur eux forment les grands courages :
 Ils n'aspirent enfin qu'à des biens passagers,
 Que troublent les soucis, que suivent les dangers :
 La mort nous les ravit, la fortune s'en joue ;
 Aujourd'hui sur le trône, et demain dans la boue ;
 Et leur plus haut éclat fait tant de mécontents,
 Que peu de vos Césars en ont joui longtemps.

- (b) *Sosie.* Parmi tout le butin fait sur nos ennemis,
Qu'est ce qu'Amphitryon obtint pour son partage ?
 Mercure. Cinq fort gros diamants, en nœud proprement mis,
Dont leur chef se paraît comme d'un rare ouvrage.
Sosie. A qui destine t-il un si riche présent ?
 Mercure. A sa femme ; et sur elle il le veut voir paraître.
Sosie. Mais où, pour l'apporter, est-il mis à présent ?
 Mercure. Dans un coffret, scellé, des armes de mon maître.
- (c) Tu n'as pas d'ailes, et tu veux voler ! Rampe !
— Hélas, monsieur, déjà je rampe assez,
Ce fol espoir qu'un moment a fait naître,
Ces vains désirs sont pour jamais passés :
Avec mon bien j'ai vu périr mon être,
Né malheureux, de la crasse tiré,
Et dans la crasse en un moment rentré.
A tous emplois on me ferme la porte.

FRENCH.

SECOND HONOURS PAPER.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Translate into English *two* of the following passages : —

12

(a) 'Tous les hommes domiciliés dans l'enceinte du mur de ville et dans les faubourgs, de quelque seigneur que relève le terrain où ils habitent, jureront la commune. Dans toute l'étendue de la ville, chacun prêterait secours aux autres loyalement et selon son pouvoir.

'Les pairs de la commune jureront de ne favoriser personne pour cause d'amitié, de ne léser personne pour cause d'inimitié, et de donner en toute chose, selon leur pouvoir, une décision équitable. Tous les autres jureront d'obéir et de prêter main-forte aux décisions des pairs.

'Quiconque aura forfait envers un homme qui aura juré cette commune, les pairs de la commune, si plainte leur en est faite, feront justice du corps et des biens du coupable, suivant leur délibération.'

(b) On montre aujourd'hui à Toulouse, dans la salle gothique où délibéraient les capitouls, le large sabre qui jadis fut, pour ces magistrats, l'équivalent des haches consulaires. C'est un cimenterie échan-crée vers la pointe, à poignée d'acier, sans garde, et d'un aspect vraiment imposant. La croyance populaire veut que cet instrument ait été fabriqué exprès pour le supplice du maréchal de Montmorency, en l'année 1632 ; mais quiconque l'examine avec un peu d'attention reconnaît que c'est une arme de parade, incapable d'avoir jamais tranché une tête, à cause d'un cordon en saillie qui garnit et décore le dos de la lame.

(c) Un des religieux, inspectant à cheval les propriétés de l'abbaye, rencontra un homme qui coupait du bois dans une réserve ; il voulut lui enlever sa cognée pour gage de l'amende, mais cet homme le frappa violemment et le renversa de cheval. Des serviteurs de

l'abbaye s'emparèrent du coupable, que eut les yeux crevés par vengeance et sans aucun jugement. A cette nouvelle, qui fit grand bruit, le comte de Nevers éprouva ou feignit d'éprouver beaucoup d'indignation; il s'emporta contre les moines, les accusant à la fois de cruauté, d'iniquité et d'attentat contre ses propres droits comme seigneur haut justicier.

2. What is the meaning of the following words and phrases:— 10
lèse-majesté; homme-lige; tiers-état; taille; banlieue; échevin; ils donneront au roi trois gîtes par an; mandat de comparution; on criait Haro as clercs; la mainmorte.

Either,

3. What do you know of *levêque Gaudri* and the manner of his death? 7

Or,

State briefly under what circumstances Reims received its charter.

4. Account for the form of the past participle in the following sentences:— 6

(a) Vous excédez les bornes de la commune de Laon qui vous a été *donnée* pour modèle.

(b) Il ne faut point recevoir dans la ville les personnes qu'il aura *bannies*.

(c) Au moment où l'action révolutionnaire est *parvenue* au dernier degré de violence, la réaction arrive.

5. Translate *two* of the following passages:— 12

(a) Après sa vigne de Château-Neuf, ce que le pape aimait le plus au monde, c'était sa mule. Le bonhomme en raffolait de cette bête-là. Tous les soirs avant de se coucher il allait voir si son écurie était bien fermée, si rien ne manquait dans sa mangeoire, et jamais il ne se serait levé de table sans faire préparer sous ses yeux un grand bol de vin à la française avec beaucoup de sucre et d'aromates, qu'il allait lui porter lui-même, malgré les observations de ses cardinaux... Il faut dire aussi que la bête en valait la peine. C'était une belle mule noire mouchetée de rouge, le pied sûr, le poil luisant, la croupe large et pleine, portant fièrement sa petite tête sèche toute harnachée de pompons, de nœuds, de grelots d'argent, de bouffettes.

(b) Quand le mistral ou la tramontane ne soufflaient pas trop fort, je venais me mettre, entre deux roches au ras de l'eau, au milieu des goélands, des merles, des hirondelles, et j'y restais presque tout le jour dans cette espèce de stupeur et d'accablement délicieux que donne la contemplation de la mer. Vous connaissez, n'est-ce pas, cette jolie griserie de l'âme? On ne pense pas, on ne rêve pas non plus. Tout votre être vous échappe, s'envole s'éparpille. On est la mouette qui plonge, la pousière d'écume qui flotte au soleil entre deux vagues, la fumée blanche de ce paquebot qui s'éloigne, ce petit corailleur à voile rouge, cette perle d'eau, ce flocon de brume, tout excepté soi-même.

(c) Dans le calme et le demi-jour d'une petite chambre un bon vieux à pommettes roses, ridé jusqu'au bout des doigts, dormait au fond d'un fauteuil, la bouche ouverte, les mains sur ses genoux. À ses pieds une fillette habillée de bleu,—grande pèlerine et petit béguin, le costume des orphelines,—lisait la Vie de saint Irénée dans un livre plus gros qu'elle... Cette lecture miraculeuse avait opéré sur toute la maison. Le vieux dormait dans son fauteuil, les mouches au plafond, les canaris dans leur cage, là-bas sur la fenêtre. La grosse horloge ronflait, tic tac, tic tac. Il n'y avait d'éveillé dans toute la chambre qu'une grande bande de lumière qui tombait droite et blanche

entre les volets clos, pleines d'étincelles vivantes et de valse microscopiques.

Either,

6. Write a short appreciative criticism of *Les Vieux*, bringing out Daudet's charm and grace as a writer. 8

Or,

Tell the story of the loss of the *Sémillante*.

7. Give the French equivalents for the following phrases:—to go barefoot; from top to bottom; in the open sea; to shake one's head; in a low voice; how bald he is!; I am mistaken; are you not ashamed?; it is not worth while; that does not matter. 10

8. Form adverbs from the following adjectives:—*prudent, lent, énorme, impuni, affreux*. 5

9. Translate two of the following passages:— 30

(a) Quelle opposition entre notre littérature du douzième siècle et celle des nations voisines! Quel contraste entre nos fabliaux, nos romans du Renard et de la Rose, nos chansons de Gestes, et les Nibelungen, le Romancero, Dante et les vieux poèmes saxons! Au lieu des grandes conceptions tragiques, des rêveries sentimentales et voluptueuses, des générosités et des tendresses du vieux poème allemand; au lieu de l'âpreté pittoresque, de l'éclat, de l'action, du nerf des récits espagnols; au lieu de la farouche énergie, de la profondeur lugubre des hymnes saxonnes, vous rencontrez des épopées prosaïques et des contes frondeurs. Leur style n'a pas de couleur et ne donne pas de secousses. Les subites et éclatantes visions, les violentes accumulations de sentiments concentrés ou épanchés, toute passion, toute splendeur y manque. Ils écrivent sans images ni figures, aisément, tranquillement, avec la suite d'une eau claire et coulante. Ils trouvent à l'instant et sans effort l'expression juste et atteignent du premier coup l'objet en lui-même, sans s'empêtrer dans le magnifique manteau des métaphores, sans être troublé par l'afflux trop grand des émotions. Bien plus, ils voient aussi nettement les liaisons des choses que les choses elles-mêmes.

TAINÉ

(b) Il ne suffit pas pour le progrès de l'esprit humain que quelques penseurs isolés arrivent à des points de vue fort avancés, et que quelques têtes s'élèvent comme des folles avoines au-dessus du niveau commun. Que sert une magnifique découverte, si tout au plus une centaine de personnes en profitent? En quoi l'humanité est-elle plus avancée, si sept ou huit personnes ont aperçu, la haute raison des choses? Un résultat n'est acquis que quand il est entré dans la grande circulation. Or les résultats de la haute science ne sont pas de ceux qu'il suffit d'énoncer. Il faut y élever les esprits. Kant et Hegel auraient beau avoir raison; leur science, dans l'état actuel, demeurerait incommunicable. Serait-ce leur faute? Non; ce serait la faute des barbares qui ne les peuvent comprendre, ou plutôt la faute de la société qui suppose fatalement des barbares. Une civilisation n'est réellement forte que quand elle a une base étendue. L'antiquité eut des penseurs presque aussi avancés que les nôtres; et pourtant la civilisation antique périt par sa paucité, sous la multitude des barbares. Elle ne portait pas sur assez d'hommes; elle a disparu, non faute d'intensité, mais faute d'extension.

RENAN.

(c) A la sueur de ton visaige
Tu gagnerois ta pauvre vie,
Après long travail et usage,
Voicy la mort qui te convie.

Le quatrain en vieux français, placé au-dessous d'une composition d'Holbein, est d'une tristesse profonde dans sa naïveté. La gravure représente un laboureur conduisant sa charrue au milieu d'un champ. Une vaste campagne s'étend au loin, on y voit de pauvres cabanes; le soleil se cache derrière la colline. C'est la fin d'une rude journée de travail. Le paysan est vieux, trapu, couvert de haillons. L'attelage de quatre chevaux qu'il pousse en avant est maigre, exténué; le soc s'enfonce dans un fond raboteux et rebelle. Un seul être est allègre et ingambe dans cette scène de 'sueur et usaige.' C'est un personnage fantastique, un squelette armé d'un fouet, qui court dans le sillon à côté des chevaux effrayés et les frappe, servant ainsi de valet de charue au vieux laboureur. C'est la mort, ce spectre qu'Holbein a introduit allégoriquement dans la succession de sujets philosophiques et religieux, à la fois lugubres et bouffons, intitulée les Simulacres de la mort.

G. SAND.

FRENCH.

THIRD HONOURS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate *five* extracts (*three* of Prose and *two* of Poetry) from among the following:—

(a) *Dover Beach.*

The sea is calm to-night,
The tide is full, the moon lies fair
Upon the Straits;—on the French coast the light
Gleams and is gone; the cliffs of England stand,
Glimmering and vast, out in the tranquil bay,
Come to the window, sweet is the night air!

(b) *L'Allegro.*

Sometimes with secure delight
The upland hamlets will invite,
When the merry bells ring round,
And the jocund rebecks sound
To many a youth and many a maid
Dancing in the checquered shade; . . .

(c) *To blossoms.*

Fair pledges of a fruitful tree,
Why do ye fall so fast?
Your date is not so past,
But you may stay yet here a while
To blush and gently smile
And go at last.

(d) *Mrs. Battle's opinions on Whist.*

To those puny objectors against cards, as nurturing the bad passions, she would retort, that man is a gaming animal. He must be

always trying to get the better in something or other :—that this passion can scarcely be more safely expended than upon a game at cards ; that cards are a temporary illusion ; in truth, a mere drama ; for we do but *play* at being mightily concerned, where a few idle shillings are at stake, yet, during the illusion, we *are* as mightily concerned as those whose stake is crowns and kingdoms.

(e) *A hunting scene with Sir Roger.*

After we had rid about a mile from home, we came upon a large heath, and the sportsmen began to beat. They had done so for some time, when, as I was at a little distance from the rest of the company, I saw a hare pop out from a small furze-brake (*buisson de bruyères*) almost under my horse's feet. I marked the way she took, which I endeavoured to make the company sensible of by extending my arm ; but to no purpose, till Sir Roger, who knows that none of my extraordinary motions are insignificant, rode up to me, and asked me, if Puss had gone that way ?

(f) *Rejoicings upon the New Year's coming of age.*

The Old Year being dead, and the New Year coming of age, which he does, by Calendar Law, as soon as the breath is out of the old gentleman's body, nothing would serve the young spark but he must give a dinner upon the occasion, to which all the Days of the year were invited. The Festivals, whom he deputed as his stewards, were mightily taken with the notion. They had been engaged time out of mind, they said, in providing mirth and good cheer for mortals below ; and it was time they should have a taste of their own bounty. It was stiffly debated among them whether the *Fasts* should be admitted.

(g) *Fashionable affectations.*

About five years ago, I remember, it was the fashion to be short-sighted. A man would not own an acquaintance until he had first examined him with his glass. At a lady's entrance into the play-house, you might see the tubes immediately levelled at her from every quarter of the pit and side-boxes. However, that mode of infirmity is out, and the age has recovered its sight : but the blind seemed to be succeeded by the lame, and a jaunty limp is the present beauty. I think I have formerly observed, a cane is part of the dress of a prig (*/at*), and always worn upon a button, . . .

2. *Either,*

(a) Give rules for the use of the French article.

Or,

Translate the following :—

War is a scourge. London is the capital of England. The statue of our late Queen is on view. The wise and pious Fénelon. This costs five shillings a dozen. I am learning Geography every day. Many nations are at war.

(b) Name six classes of nouns that are never used in the singular. 4
Give one example of each class. Write out six nouns that are not used in the plural.

(c) Correct and justify your correction in the following :—une 2
livre (lb.) et demi, la feu reine, les yeux et la bouche ouverte.

(d) Distinguish between —un grand homme and un homme grand, 2
un étudiant pauvre and un pauvre étudiant.

(e) Comment on the use of the indefinite pronouns on, chacun. 3

(f) Is the proper *tense* used in the following sentences :—Quand il eut fini, je le remerciais ; Quand il avait tué son père, il fallut le mettre à mort ? Explain and translate.

(g) When is the subjunctive used in French ? Frame short sentences in illustration.

3. (a) When did the Franks conquer Gaul ? In whose power had it been before ?

(b) Give the boundaries of the Empire of Charlemagne at the time of its greatest extent.

(c) Who ruled over France at the time of the Second Crusade ? Who was St. Bernard ? Give some details of the conflict. What was the issue of the Crusade ?

(d) Name the kings of France between Francis I (*give date*) and Louis XVI (*give date*).

(e) Relate briefly the chief events of the First French Revolution, in chronological order.

FRENCH.

FOURTH HONOURS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English *two* of the following passages :— 12

(a) . ARN. Peut-être. Mais enfin contez-moi cette histoire.

AG. Elle est fort étonnante, et difficile à croire.

J'étais sur le balcon à travailler au frais,

Lorsque je vis passer sous les arbres d'auprès

Un jeune homme bien fait, qui rencontrant ma vue,

D'une humble révérence aussitôt me salue :

Moi, pour ne point manquer à la civilité,

Je fis la révérence aussi de mon côté.

Soudain il me refait une autre révérence :

Moi, j'en refais de même une autre en diligence :

Et lui d'une troisième aussitôt repartant,

D'une troisième aussi j'y repars à l'instant.

Il passe, vient, repasse, et toujours de plus belle

Me fait à chaque fois révérence nouvelle.

(b) ARN. (*assis*). Agnès, pour m'écouter, laissez là votre ouvrage.

Levez un peu la tête et tournez le visage :

Là regardez-moi là durant cet entretien

Et jusqu'au moindre mot imprimez-le-vous bien.

Je vous épouse, Agnès ; et cent fois la journée

Vous devez bénir l'heur de votre destinée,

Contempler la bassesse où vous avez été

Et dans le même temps admirer ma bonté,

Qui de ce vil état de pauvre villageoise

Vous fait monter au rang d'honorable bourgeoise

Et jouir de la couche et des embrassements

D'un homme qui fuyait tous ces engagements,

Et dont à vingt partis, fort capables de plaire,

La cœur a refusé l'honneur qu'il vous veut faire.

- (c) HOR. La place m'est heureuse à vous y rencontrer.
 Je viens de l'échapper bien belle, je vous jure.
 An sortir d'avec vous, sans prévoir l'aventure,
 Seule dans son balcon j'ai vu paraître Agnès,
 Qui des arbres prochains prenait un peu le frais.
 Après m'avoir fait signe, elle a su faire en sorte,
 Descendant au jardin, de m'en ouvrir la porte;
 Mais à peine tous deux dans sa chambre étions-nous,
 Qu'elle a sur les degrés entendu son jaloux;
 Et tout ce qu'elle a pu dans un tel accessoire,
 C'est de me renfermer dans une grande armoire.
 Il est entré d'abord : je ne le voyais pas,
 Mais je l'oyais marcher, sans rien dire, à grands pas,
 Poussant de temps en temps des soupirs pitoyables,
 Et donnant quelquefois de grands coups sur les tables.

Either,

2. Write a short account of the dénouement of *L'E'cole des Femmes*.

Or,

Give some account of the measure of success achieved by *L'E'cole des Femmes* on its first presentation. Who played the leading part?

3. Scan the first six lines of Extract 1 (b). 6
 4. Annotate the following words used by Molière:—*choir, nenni, 8*
ouïr, (je) voi, ladite, las ! (je) connoi, jusques.
 5. Translate two of the following passages:— 12

(a)

Don Alonse.

Sire, le Comte est mort :
 Don Diègue, par son fils, a vengé son offense.

Don Fernand.

Dès que j'ai su l'affront, j'ai prévu la vengeance ;
 Et j'ai voulu dès lors prévenir ce malheur.

Don Alonse.

Chimène à vos genoux apporte sa douleur ;
 Elle vient tout en pleurs vous demander justice.

Don Fernand.

Bien qu'à ses déplaisirs mon âme compatisse,
 Ce que le Comte a fait semble avoir mérité
 Ce digne châtimement de sa témérité.
 Quel ue juste pourtant que puisse être sa peine,
 Je ne puis sans regret perdre un tel capitaine.

(b)

Sous moi donc cette troupe s'avance,
 Et porte sur le front une,mâle assurance.
 Nous partîmes cinq cents ; mais par un prompt renfort
 Nous nous vîmes trois mille en arrivant au port,
 Tant, à nous voir marcher avec un tel visage,
 Les plus épouvantés reprenoient de courage !
 J'en cache les deux tiers, aussitôt qu'arrivés,
 Dans le fond des vaisseaux que lors furent trouvés ;
 Le reste, dont le nombre augmentoit à toute heure,
 Brûlant d'impatience autour de moi demeure,
 Se couche contre terre, et, sans faire aucun bruit,
 Passe une bonne part d'une si belle nuit.

(c)

Don Sanche.

De grâce, acceptez mon service,

Chimène.

J'offenserois le Roi, qui m'a promis justice.

Don Sanche.

Vous savez qu'elle marche avec tant de langueur,
 Qu'assez souvent le crime échappe à sa longueur :
 Son cours lent et douteux fait trop perdre de larmes.
 Souffrez qu'un cavalier vous venge par les armes :
 La voie en est sûre, et plus prompte à punir.

Chimène.

C'est le dernier remède ; et s'il y faut venir,
 Et quo de mes malheurs cette pitié vous dure,
 Vous serez libre alors de venger mon injure.

Don Sanche.

C'est l'unique bonheur où mon âme prétend ;
 Et pouvant l'espérer, je m'en vais trop content.

6. 'Corneille's heroes are mere abstractions and psychologically unreal.' Discuss this statement with special reference to the *Cid*. 10

7. Why did Richelieu side with the rivals of Corneille in denouncing the *Cid* ? 8

8. Account for the *ne* in the following sentence :— 'Ton honneur t'est plus cher que je *ne* te suis chère.' After what verbs may *pas* be omitted as the second part of the negative ? 6

9. Translate into French the following passages :— 30

(a) It happened one day, about noon, going towards my boat, I was exceedingly surprised with the print of a man's naked foot on the shore, which was very plain to be seen in the sand. I stood like one thunderstruck, or as if I had seen an apparition ; I listened, I looked round me, but I could hear nothing nor see anything ; I went up to a rising ground to look further ; I went up the shore and down the shore, but it was all one, I could see no other impression but that one. I went to it again to see if there were any more, and to observe if it might not be my fancy ; but there was no room for that, for there was exactly the very print of a foot—toes, heel, and every part of a foot.

DEFOE.

(b) My friend Sir Roger has often told me, with a good deal of mirth, that at his first coming to his estate he found three parts of his house altogether useless : that the best room in it had the reputation of being haunted, and by that means was locked up : that noises had been heard in his long gallery, so that he could not get a servant to enter it after eight o'clock at night ; that the door of one of his chamber was nailed up, because there went a story in the family that a butler had formerly hanged himself in it ; and that his mother, who had lived to a great age, had shut up half the rooms in the house, in which either her husband, a son, or a daughter had died. ADDISON.

FRENCH.

FIFTH HONOURS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English *five* of the following passages:—

25

(a) Quiconque a jeté une pierre dans une mare à grenouilles ou tiré un coup de fusil dans une volée d'oiseaux peut se faire une idée de l'effet que produisirent ces paroles incongrues, au milieu de l'attention générale. Gringoire en tressaillit comme d'une secousse électrique. Le prologue resta court, et toutes les têtes se retournèrent en tumulte vers le mendiant, qui, loin de se déconcerter, vit dans cet incident une bonne occasion de recolle.

(b) 'Ah! c'est toi, maître! dit Clopin. J'y étais, par la tête-Dieu! Eh bien! camarade, est ce une raison, parce que tu nous as ennuyés ce matin, pour ne pas être pendu ce soir?' 'J'aurai de la peine à m'en tirer,' pensa Gringoire. Il tenta pourtant encore un effort. 'Je ne vois pas pourquoi, dit-il, les poètes ne sont pas rangés parmi les truands. Vagabond, Esopus le fut; mendiant, Homerus le fut.'

(c) 'Vous trouvez, compère Coictier?' dit le compagnon. Cette parole, prononcée du ton de la surprise et du reproche, ramena sur ce personnage inconnu l'attention de l'archidiaire, qui, à vrai dire, ne s'en était pas complètement détourné un seul moment depuis que cet étranger avait franchi le seuil de la cellule. Il avait même fallu les mille raisons qu'il avait de ménager le docteur Jacques Coictier, le tout-puissant médecin du roi Louis XI, pour qu'il le reçût ainsi accompagné.

(d) Dom Claude fit un geste d'impatience. 'Je ne vous parle pas de cela, maître Jacques Charmolue, mais du procès de votre magicien. N'est-ce pas Mare Cenaine, que vous le nommez, le sorcier de la cour des comptes? Avoue-t-il sa magie? La question vous a-t-elle réussi?'

'Hélas non, répondit maître Jacques, toujours avec son sourire triste. Nous n'avons pas cette consolation. Cet homme est un caillou.'

(e) E'perdu, il ne sut où il allait. Au bout de quelques pas il se trouva sur le pont Saint-Michel. Il y avait une lumière à une fenêtre d'un rez-de-chaussée. Il s'approcha. A travers un vitrage fêlé il vit une salle sordide, qui réveilla un souvenir confus dans son esprit. Dans cette salle, mal éclairée d'une lampe maigre, il y avait un jeune homme blond et frais, à figure joyeuse, qui embrassait, avec de grands éclats de rire, une jeune fille fort effrontément parée.

(f) 'Vous êtes pathétique, dit-il en essuyant une larme. — Eh bien! j'y réfléchirai. — C'est une drôle d'idée que vous avez eue là. — Après tout, poursuivit-il après un silence, qui sait? peut-être ne me pèndront-ils pas. N'épouse pas toujours qui fiance. Quand ils me trouveront dans cette logette, si grotesquement affublé, en jupe et en coiffe, peut-être éclateront-ils de rire. — Et puis, s'ils me pèndent, eh bien! la corde, c'est une mort comme une autre, ou, pour mieux dire, ce n'est pas une mort comme une autre.'

Either,

2. Write a criticism of *Noître-Dame de Paris* as a historical romance. 12

Or,

Say what you know about Victor Hugo as a romanticist.

3. Give a character-sketch of *one* of the following personages :— 9

(a) Dom Claude.

(b) Gringoire.

(c) Charmolue.

4. In what ways may the English passive be rendered in French ? 6

5. Account for the mood of the words italicized in *three* of the following sentences :— 12

(a) Mon père exige que je lui *renvoie* tout l'argent qu'il m'a donné.

(b) Je ne croyais pas que le roi *vint*.

(c) Il n'y en a pas un seul qui *réponde*.

(d) Le général défendit qu'aucun soldat *entrât* dans la ville.

Either,

6. Frame sentences to show the various uses of *même* and *aucun*. 6

Or,

Frame sentences showing how *tout* may be used as an adjective, a pronoun, a substantive, and an adverb.

7. Translate into French :—

30

(a) My masters, I am a very bad orator, for my bringing up hath not been in learning, but what so I shall here speak let every man take notice of what I shall say, and let him write it down if he list, for I will speak nothing, but I will answer it in England, yea, and before her Majesty, and I have it here already set down. Thus it is, my masters, that we are very far from our country and friends, we are compassed in on every side with our enemies, wherefore we are not to make small reckoning of a man, for we cannot have a man if we would give for him ten thousand pounds. Wherefore we must have these mutinies and discords, that are grown amongst us, redressed, for it doth even take my wits from me to think of it.

(b) Caius Marcius was a noble Roman, of the race of that worthy king, Ancus Marcius; his father died when he was a child, but his mother, whose name was Volumnia, performed to him the part both of father and mother; Caius loved her exceedingly, and when he gained glory by his feats of arms it was his greatest joy that his mother should hear his praises; and when he was rewarded for his noble deeds it was his greatest joy that his mother should see him receive his crown.

FRENCH.

SIXTH HONOURS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

SECTION A.

1. Translate into English:—

40

(a) On affecte souvent de mépriser cette partie du travail qui consiste à disposer ses idées et à marquer d'avance tous les points de la route où l'on doit passer. Métier de manœuvre, dit on : cette patiente régularité est l'œuvre d'un génie médicore. Les grands esprits, qui prennent les choses en haut, n'ont qu'à se lancer, portés au but par le droit jet de l'inspiration. C'est là le langage de la paresse qui fuit la peine, ou de l'orgueil qui la dissimule. Tout ce qu'on prétend laisser à l'inspiration, on le livre au hasard.

(b) Le sage ne fait pas le fier. Une fougnai
Travaille plus avec sa routine ordinaire
Et son bon sens, qu'avec son vacarme en tonnerre.
L'homme est l'homme ; il n'est pas méchant, il n'est pas bon.
Blanc comme neige, point, noir comme le charbon,
Non. Blanc et noir, mêlé, tigré, douteux, sceptique.
Tout homme médiocre est homme politique.
Cherchons, non la grandeur, mais la proportion
Agir comme Aristide et comme Phocion,
Être héroïque, épique et beau, mauvaise affaire.

(c) 'Qui dit auteur dit oœur,' c'est un mot de Beaumarchais, et nul n'a plus justifié que lui cette définition. En mêlant au vieil esprit gaulois les goûts du moment, un peu de Rabelais et de Voltaire, en y jetant un léger déguisement espagnol et quelques rayons du soleil de l'Andalousie il a su être le plus réjouissant et le plus remuant Parisien de son temps, le Gil Blas de l'époque encyclopédique, à la veille de l'époque révolutionnaire ; il a redonné cours à toutes sortes de vieilles vérités d'expérience ou de vieilles satires, en les rajeunissant. Il a refrappé bon nombre de proverbes qui étaient près de s'user.

(d) Dans notre âge de science et d'industrie, l'appétit de l'au-delà subsiste toujours. Il se fait seulement plus rare et plus morbide par sa difficulté à se satisfaire. Le signe le plus extraordinaire de l'intensité actuelle de ce goût du rêve est la prédominance que la musique a prise chez nous depuis ces dernières années, parce qu'elle est le plus vague de tous les arts, le plus capable de conduire l'imagination dans l'incertain et l'indéterminé de la fantaisie. Nous avons vu à l'occasion de M. Dumas, cet énergique et ce volontaire, que le mysticisme était le terme de beaucoup de pensées modernes.

SECTION B.

Answer any THREE questions.

Each question carries 10 marks.

2. Who were the *Parnassiens* ? Write an account of the work of any one of them.

3. Show your acquaintance with *one* of the following works:—*Henriade*; *Caractères*; *Athalie*; *Le Génie du Christianisme*; *Vingt ans après*.

4. Estimate the importance in the history of French Literature of *one* of the following writers:—Beaumarchais, Du Bellay, Pascal, Fénelon, Alfred de Vigny.

5. Write a full note on *one* of the following:—

(a) The quarrel of the Ancients and Moderns.

(b) Criticism as exemplified in the work of any French critic you know.

(c) Hôtel de Rambouillet.

SECTION C.

Answer any THREE questions.

Each question carries 10 marks.

6. Trace the history of *two* of the following vowels, from Latin to Modern French:—*a*, *è* (open *e*), *u*, *é* (close *e*).

7. Give examples of nouns which have survived in the nominative and genitive forms instead of the accusative.

8. Write out in the Singular and Plural the 1st, 2nd, and 3rd Personal Pronouns in Old French.

9. Explain *two* of the following:—*hiatus*, *caesura*, *alexandrine*, *enjambement*.

10. Give the history of *four* of the following words:—*aller*, *avoir*, *minuit*, *espace*, *chevalier*, *soutenir*, *maudire*, *parfait*.

FRENCH.

FIRST PASS PAPER.

Examiner—REV. E. FRANCOTTE, S.J.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate *two* of the following passages:—

12

- (a) J'ai reposé mon front sur mon fusil sans poudre,
 Me prenant à penser, et n'ai pu me résoudre
 A poursuivre sa louve et ses fils, 'qui, tous trois,
 Avaient voulu l'attendre; et, comme je le crois,
 Sans ses deux louveteaux, la belle et sombre veuve
 Ne l'eût point laissé seul subir la grande épreuve;
 Mais son devoir était de les sauver, afin
 De pouvoir leur apprendre à bien souffrir la faim,
 A ne jamais entrer dans le pacte des villes
 Que l'homme a fait avec les animaux serviles;
 Qui chassent devant lui, pour avoir le coucher,
 Les premiers possesseurs du bois et du rocher.

(b) Puis, à pas lents, musique en tête, sans fureur,
 Tranquille, *souriant* à la mitraille anglaise,
 La Garde impériale entra dans la fournaise.
 Hélas ! Napoléon, sur sa garde penché,
 Regardait, et sitôt qu'ils avaient débouché,
 Sous les sombres canons crachant des jets de soufre,
 Voyait, l'un après l'autre, en cet horrible gouffre,
 Fondre ces régiments de granit et d'acier.
 Comme *fond* une cire au souffle d'un brasier.
 Ils allaient, l'arme au bras, front haut, graves, stoïques.
 Pas un ne recula. Dormez, morts héroïques !
 Le reste de l'armée hésitait sur leurs corps,
 Et regardait mourir la Garde.

(c) On me dit cependant qu'une joie infinie
 Attend quelques élus.—Où sont-ils, ces heureux ?
 Si vous m'avez trompé, me rendrez-vous la vie ?
 Si vous m'avez dit vrai, m'ouvrirez-vous les Cieux ?
 Hélas ! ce beau pays dont parlaient vos prophètes,
 S'il existe là-haut, ce *doit* être un désert.
 Vous les *voulez* trop purs, les heureux que vous faites,
 Et quand leur joie arrive ils en ont trop souffert.
 Je suis seulement homme, et ne veux pas moins être,
 Ni tenter davantage.—A quoi donc m'arrêter ?
 Puisque je ne puis croire aux promesses du prêtre,
 Est-ce l'indifférent que je vais consulter ?

2. Parse, giving principal parts:—

12

résoudre, eût (extract (a)), *souriant, fond* (extract (b)), *doit, voulez*

(extract (c)).

3. Answer *two* of the following:—

12

(a) Et cependant, Seigneur, je ne suis pas heureux ;
 Vous m'avez fait vieillir puissant et solitaire,
 Laissez-moi m'endormir du sommeil de la terre.

Who is the author of these lines ? In what poem do they occur ?
 Show how the poem embodies one of the author's favourite ideas.

(b) Assez de malheureux ici-bas vous imploront :
 Coulez, coulez pour eux ;
 Prenez avec leurs jours les soins qui les dévorent ;
 Oubliez les heureux !

Give the context of these lines, and write a short appreciation of
 the poem in which they occur.

(c) Descartes m'abandonne au soin des tourbillons,
 Montaigne s'examine, et ne peut se connaître,
 Pascal fuit en tremblant ses propres visions.

Write short accounts of *two* of the authors mentioned in these lines.

4. Translate *two* of the following passages:—

12

(a) *Cyrano.* Et que faudrait-il faire ?
 Chercher un protecteur puissant, prendre un patron,
 Et comme un lierre obscur qui circonvient un tronc
 Et s'en fait un tuteur en lui léchant l'écorce,
 Grimper par ruse au lieu de s'élever par force ?
 Non, merci. Dédier, comme tous ils le font,
 Des vers aux financiers ? se changer en bouffon
 Dans l'espoir vil de voir, aux lèvres d'un ministre,

Naître un sourire, enfin, qui ne soit pas sinistre ?
 Non, merci. Déjeuner, chaque jour, d'un crapaud ?
 Avoir un ventre usé par la marche ? une peau ?
 Qui plus vite, à l'endroit des genoux, devient sale ?
 Exécuter des tours de souplesse dorsale ? . . .
 Non, merci.

- (b) *Cyrano*.—Je sais tout ce qu'il faut. Prépare ta mémoire,
 Voici l'occasion de se couvrir de gloire.
 Ne pardons pas de temps. Ne prends pas l'air grognon.
 Vite, rentrons chez toi, je vais t'apprendre . . .

Christian.

Non !

Cyrano.—Hein ?

Christian. Non ! j'attends Roxane ici.

Cyrano.

De quel vertige

Est-tu frappé ? Viens vite apprendre . . .

Christian.

Non, te dis-je !

Je suis las d'emprunter mes lettres, mes discours,
 Et de jouer ce rôle, et de trembler toujours ! . . .
 C'était bon au début ! Mais je sens qu'elle m'aime !
 Merci. Je n'ai plus peur. Je vais parler moi-même.

- (c) DE GUICHE, *surpris et satisfait*.

Vous savez ce détail ? . . . En effet, il advint,
 Durant que je faisais ma caracole afin
 De rassembler mes gens pour la troisième charge,
 Qu'un remous de fuyards m'entraîna sur la marge
 Des ennemis ; j'étais en danger qu'on me prit
 Et qu'on m'arquebusât, quand j'eus le bon esprit
 De dénouer et de laisser couler à terre
 L'écharpe qui disait mon grade militaire ;
 En sorte que je pus, sans attirer les yeux,
 Quitter les Espagnols, et revenant sur eux,
 Suivi de tous les miens réconfortés, les battre f
 —Eh bien ! que dites-vous de ce trait ?

5. Comment on the mood of the verbs italicized :—

6

- (a) J'ai trop peur qu'un refus ne vous *soit* un chagrin.
 (b) Ah ! ces horreurs, il a fallu que je les *visse*
 Pour y croire.
 (c) Peut-être siérait-il que je vous *présentasse*,
 Puisqu'il en est ainsi, quelques de ces messieurs.

6. Give the English equivalents for the idiomatic phrases italicized :—

6

- (a) Ce départ me désespère !
Quand on tient à quelqu'un, le savoir à la guerre !
 (b) Va, ne deviens pas laid ; *elle m'en voudrait trop.*
 (c) Dans les oreilles, moi, j'ai des bourdonnements
Cyrano. Non, non ; *ventre affamé, pas d'oreilles :*
 tu mens !

7. Give some account of Edmond Rostand, with a list of his chief literary works.

5

8. When are the events of *Cyrano de Bergerac* represented as having taken place ? Give an account of the historical background of the play. Is the unity of time observed ?

5

9. Translate any *two* of the following passages :—

30

- (a) Quand tes beaux pieds distraits errent, ô jeune fille,
 Sur ce sable mouillé, frange d'or de la mer,
 Baisse-toi, mon amour, vers la blonde coquille
 Que Vénus fait, dit-on, polir au flot amer.
 L'écrin de l'Océan n'en a point de pareille ;
 Les roses de ta joue ont peine à l'égalér ;
 Et quand de sa volute on approche l'oreille
 On entend mille voix qu'on ne peut démêler.
 Tantôt c'est la tempête avec ses lourdes vagues
 Qui viennent en tonnant se briser sur tes pas,
 Tantôt c'est la forêt avec ses frissons vagues,
 Tantôt ce sont des voix qui chuchotent tout bas.
 Oh ! ne dirais-tu pas, à ce confus murmure
 Que rend le coquillage aux lèvres de carmin,
 Un écho merveilleux où l'immense nature
 Résume tous ses bruits dans le creux de ta main ?
- (b) J'en rends grâce au ciel qui, m'arrêtant sans cesse,
 Semblait m'avoir fermé le chemin de la Grèce ;
 Depuis le jour fatal que la fureur des eaux,
 Presque aux yeux de l'Épire, écarta nos vaisseaux.
 Combien, dans cet exil, ai-je souffert d'alarmes !
 Combien à vos malheurs ai-je donné de larmes !
 Craignant toujours pour vous quelque nouveau danger,
 Que ma triste amitié ne pouvait partager. —
 Surtout je redoutais cette mélancolie,
 Où j'ai vu si longtemps votre âme ensevelie—
 Je craignais que le ciel, par un cruel secours,
 Ne vous offrît la mort que vous cherchez toujours.
 Mais je vous vois, seigneur ; et, si j'ose le dire,
 Un destin plus heureux vous conduit on Épire.
 Le pompeux appareil qui suit ici vos pas
 N'est point d'un malheureux qui cherche le trépas.
- (c) D'un des pans de sa robe il couvre son visage,
 A son mauvais destin on aveugle obéit,
 Et dédaigne de voir le ciel qui le trahit,
 De peur que d'un coup d'œil contre une telle offense
 Il ne semble implorer son aide ou sa vengeance ;
 Aucun gémissement à son cœur échappé
 Ne le montre, en mourant, digne d'être frappé :
 Immobile à leurs coups, en lui-même il rappelle
 Ce qu'eut de beau sa vie, et ce qu'on dira d'elle,
 Et tient la trahison que le roi leur prescrit
 Trop au-dessous de lui pour y prêter l'esprit.
 Sa vertu dans leur crime augmente ainsi son lustre,
 Et son dernier soupir est un soupir illustre,
 Qui, de cette grande âme achevant les destins,
 Étale tout Pompée aux yeux des assassins.

FRENCH.

SECOND PASS PAPER.

Examiner—T. S. STERLING, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English *five* of the following passages:—

25

(a) Et nous avions tous des larmes dans les yeux de voir le pauvre vieux se démener de droite et de gauche, éventrant les sacs, surveillant la meule, tandis que le grain s'écrasait et que la fine poussière de froment s'envolait au plafond. C'est une justice à nous rendre : à partir de ce jour-là, jamais nous ne laissâmes le vieux meunier manquer d'ouvrage.

(b) Fatigué d'en avoir tant dit, le berger s'assit, et le patron reprit la parole : 'Oui, monsieur, c'est ce pauvre vieux qui est venu nous prévenir. Il était presque fou de peur ; et, de l'affaire, sa cervelle en est restée détraquée.' Le fait est qu'il y avait de quoi . . . Figurez-vous six cents cadavres en tas sur le sable, pêle-mêle avec les éclats de bois et les lambeaux de toile.'

(c) Pendant ce temps, un drame terrible se passait à l'autre bout de la chambre, devant l'armoire. Il s'agissait d'atteindre là haut, sur le dernier rayon, certain bocal de cerises à l'eau-de-vie qui attendait Maurice depuis dix ans et dont on voulait me faire l'ouverture. Malgré les supplications de Mamette le vieux avait tenu à aller chercher ses cerises lui-même ; et, monté sur une chaise au grand effroi de sa femme, il essayait d'arriver là-haut.

(d) Lorsque les chefs de la commune eurent adressé leurs propositions à Thomas de Marle, celui-ci demanda à en délibérer séparément avec les siens ; tous furent d'avis que ses troupes n'étaient pas assez nombreuses pour tenir dans la place contre la puissance du roi. Cette réponse était dure à donner. Thomas craignit qu'elle n'excitât le ressentiment des bourgeois et qu'ils ne voulussent le retenir de force pour lui faire partager, bon gré mal gré, les chances de leur rébellion.

(e) Menacé pour la seconde fois d'être assiégé par les révoltés, Henri de Franco ne s'adressa pas à son frère, qu'il trouvait trop tiède, mais à un souverain étranger, le comte de Flandre. Il l'invita à venir à Reims avec une troupe de mille chevaliers, ce qui, en comptant les sergents d'armes dont chaque chevalier était accompagné, devait faire environ six mille hommes.

(f) Un des religieux, inspectant à cheval les propriétés de l'abbaye, recontra un homme qui coupait du bois dans une réserve ; il voulut lui enlever sa cognée pour gage de l'amende, mais cet homme le frappa violemment et le renversa de cheval. Des serviteurs de l'abbaye s'emparèrent du coupable, qui eut les yeux crevés par vengeance et sans aucun jugement.

2. Write short notes on *three* of the following:—*le moulin de Jemmapes* ; *Gringoire* ; *bandits corses* ; *Lucquois* ; *Secousse* ; *Villy*. 9

Either,

3. Contrast Daudet and Thierry as letter-writers.

12

Or,

Estimate the position of Daudet in the history of French literature.

4. Translate and explain *five* of the following, adding notes on 15 points of grammar wherever necessary :—

- (a) Le chien de garde a beau les appeler.
- (b) Qu'est-ce qu'on leur fait donc à mes chèvres ?
- (c) Il n'y avait pas de bonnes manières qu'on ne lui fit.
- (d) A la longue pourtant tout se découvrit.
- (e) Taillables à merci.
- (f) A l'insu du roi.
- (g) En la miséricorde des juges.
- (h) Les droits de cour plénière, d'ost et de chevauchée.

Etiher,

5. Give rules (with examples) for the agreement of the past participle. 9

Or,

Give rules (with examples) for the use of the Subjunctive Mood in French.

6. Translate into English :—

30

(a) Après cette époque de vie forte et large, généreuse, 'libérale,'— pour répéter un de ses termes favoris—où toutes les facultés de l'homme semblent avoir également pu s'exercer, vient un siècle plus intellectuel, où l'esprit, tantôt grave et tantôt léger, tantôt domine et étouffe, et tantôt dissèque et amoindrit, le sentiment et l'imagination ; et toute la conduite de la vie, toutes les expressions de l'art, ont désormais quelque chose de plus conscient, de plus étudié, mais souvent aussi de plus lent et de plus froid.

(b) Le repos est tout au plus ce qu'on peut attendre d'une vie sédentaire et inactive : le repos, état de neutralité entre la peine et la plaisir. La vivacité des sensations, les élans de la vigueur, la confiance de succès, et le mépris des fatigues, sont réservés à ceux qui fortifient leurs muscles et endurent leurs fibres, qui entretiennent par le mouvement la souplesse de leurs membres, et qui s'aguerrissent par de fréquentes épreuves aux impressions ordinaires du froid et de la chaleur.

FRENCH.

THIRD PASS PAPER.

Examiner—REV. E. FRANÇOTTE, S.J.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Out of the following, turn into Classical French *three* Prose passages and *two* of Poetry :— 50

- (a) *Alhadra*. I crept into the cavern—
'Twas dark and very silent. What saidst thou ?
No! No! I did not dare call Isidore,
Lest I should hear no answer! A brief while,

Belike, I lost all thought and memory
 Of that for which I come! After that pause,
 O Heaven! I heard a groan, and followed it;
 And yet another groan, which guided me
 Into a strange recess—and there was light,
 A hideous light! His torch lay on the ground;
 Its flame burnt dimly o'er a chasm's brink;
 I spake; and whilst I spake, a feeble groan
 Came from that chasm! It was his last—his death-groan!

- (b) Think, O my Soul, devoutly think,
 How with affrighted eyes
 Thou saw'st the wide extended Deep
 In all its horrors rise!
 Confusion dwelt in ev'ry face,
 And fear in ev'ry heart,
 When waves on waves and gulphs in gulphs
 O'ercame the pilot's art.
 Yet then, from all my griefs, O Lord,
 Thy mercy set me free,
 Whilst in the confidence of pray'r
 My Soul took hold on Thee . . .

- (c) You shall hear how Hiawatha
 Prayed and fasted in the forest,
 Not for greater skill in hunting,
 Not for greater craft in fishing,
 Not for triumphs in the battle
 And renown among the warriors,
 But for profit of the people,
 For advantage of the nations.
 First he built a lodge for fasting,
 Built a wigwam (*a hut*) in the forest,
 By the shining Big-Sea-Water,
 In the blithe and pleasant spring-time . . .

- (d) Then answered Caius Cossus:
 'I see an evil sight;
 The banner of proud Tusculum
 Comes from the Latian right;
 I see the plumed horsemen;
 And far before the rest
 I see the dark-grey charger,
 I see the purple vest;
 I see the golden helmet
 That shines far off like flame;
 So ever rides Mamilius,
 Prince of the Latian name.

(e) Gentlemen, when I came hither, I did think that a duty was incumbent upon me a little to pity myself; because, this being a very extraordinary occasion, I thought I had very many things to say unto you, and was somewhat burdened and straitened thereby. But, truly now, seeing you in such condition as you are, I think I must turn off my pity in this, as I hope I shall in everything else; and consider you as certainly not being able long to bear that condition and heat that you are now in.—So far as possible, on this large subject let us be brief, not studying the art of Rhetoricians. Rhetoricians, whom I do not pretend to much concern with, neither with them, nor with what they use to deal in: *words!*

(f) It may be worth while to examine how darkness can operate in such a manner as to cause pain. It is observable, that still as we recede from the light, nature has so contrived it, that the pupil is enlarged by the retiring of the iris, in proportion to our recess. Now, instead of declining from it but a little, suppose that we withdraw entirely from the light; it is reasonable to think, that the contraction of the radial fibres of the iris is proportionably greater; and that this part may by great darkness come to be so contracted as to strain the nerves that compose it beyond their natural tone; and by this means to produce a painful sensation. Such a tension there certainly is, whilst we are involved in darkness. . . .

(g) To the Rev. William Unwin—Jan. 3, 1784.

My dear William, Your silence began to be distressing both to your mother and me, and had I not received a letter from you last night, I should have written by this post to enquire after your health. How can it be, that you, who are not stationary like me, but often change your situation and mix with a variety of company, should suppose me furnished with such abundant materials, and yourself destitute? I assure you faithfully that I do not find the soil of Olney prolific in the growth of such articles as make letter-writing a desirable employment. No place contributes less to the catalogue of incidents, or is more scantily supplied with anecdotes worth notice. We have

One parson, one poet, one bellman, one crier,
And the poor poet is our only 'squire.—W. C.

(h) I believe that the educational value of a worthy setting of a great University is not to be despised. Traditions cling round our buildings. They become part and parcel, as it were, of the fabric in which the studies take place. They are intimately associated with the recollections or the students after they have left the place of their education. They form part of that most valuable result of academic training—the love with which those who have been academically trained look back to the freshest, the brightest, and the most plastic period of their lives. If history teaches us anything about the condition of University life, it is that a University, once founded, is possessed of a wonderful, persistent vitality.

(i) An ant is a wise creature for itself; but it is a shrewd thing in an orchard or garden. And certainly men that are great lovers of themselves waste the public. Divide with reason between self-love and society; and be true to thyself, as thou be not false to others; especially to thy King and country. It is a poor centre of a man's actions, *himself*. It is right earth. For that only stands fast upon his own centre; whereas all things that have affinity with the heavens, move upon the centre of another, which they benefit. The referring of all to a man's self is more tolerable in a sovereign prince; because themselves are not only themselves, but their good and evil is at the peril of the public fortune. But it is a desperate evil in a servant to a prince, or a citizen in a republic.

2. (a) Give the principal parts of the following verbs:—*assaillir*, 4
courir, *s'asseoir*, *moudre*—the 1st person sing. of the *temps primitifs*
only.

(b) Name two French verbs used only in the present infinitive. 1

(c) Conjugate, with a negative, the present conditional of *avoir*; 4
the passé défini of *coudre* (without the negative); the imperative mood
of *croire*; and the pluperfect subjunctive of *faire*.

3. (a) Give some rules for the formation of the plural in compound 3
substantives. Illustrate each rule by one example.

- (b) What do you know about the agreement and use of possessive adjectives and pronouns? Is it the same in English? Illustrate. 4
- (c) Translate:—It is proper that he should come. He does not reflect that he is deceiving himself. However rich you may be. I doubt whether he has done his task. 2
- (d) Correct, without comment:—*Elle s'est dite: je suis riche. On leur a accordé toutes les faveurs qu'ils ont voulues.* 2
4. (a) Write a brief summary of the wars of Charlemagne. 5
- (b) Say a few words about Hugh Capet. By whom was he elected King of France? About what time? Did he make any conquest? 2
- (c) What do you know about Peter the Hermit and Godefroy de Bouillon? 3
- (d) Summarize the Hundred Years' War mentioning only the most important events of that period of the history of England and France. 8
- (e) Mention the chief events connected with the public life of Joan of Arc. 3
- (f) Say a few words about the religious troubles which desolated France during the reign of Henri IV. Who was Ravaillac? 3
- (g) Who were the following, and for what were they remarkable:—Condé, Richelieu, Foaquet? Who ruled over France in their time? 3
- (h) What do you know about the Second French Republic? What was its final issue? 3
-

SYRIAC.

Paper-setters— $\left\{ \begin{array}{l} \text{A. H. HARLEY, ESQ., M.A.} \\ \text{REV. N. G. KURIAKOS.} \end{array} \right.$

FIRST PASS PAPER.

Examiner—A. H. HARLEY, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English:

12

[illegible]

2. (1) Point the passage in question 1.

12.

(2) Parse the underlined words in question 1.

3. (i) Attach pronominal suffixes to 3rd sing. masc. perfect pael of كتب and imperfect Aphel of كتب.

16

(ii) Write a note on any three of the following :—

(a) The doubly defective verb

(b) 'The impersonal verb

(c) The uses of passive participles

and (d) The infinitive absolute.

3. Translate into idiomatic Syriac :-

20

Like Jonathan the true friend, thou hast bound thyself to me in love. But that the soul of Jonathan clave unto the soul of David, after he saw that the giant was slain by his hands and the camp delivered, is not so marvellous as this, because he loved him for his deeds; whereas thou hast loved me more than thyself, without having seen anything that was good in me, Nor is Jonathan's delivering of David from death at the hands of Saul deserving of wonder in comparison with this doing of thine, because he still requited unto him something that was due to him; for he first delivered him from

2 (a) Can you mention any other meanings attaching to the root **هــم**? 18
(b) What part of speech is **هـَمٌّ**? Use a derivative of this word to express "the besieged."

3. Translate the following :—

[illegible][illegible][illegible][illegible]

GROUP B.

7. Give in Syriac the substance of the following fable:—

23

An ant went to the bank of a river to quench its thirst, and being carried away by the rush of the stream, was on the point of being drowned. A dove, sitting on a tree overhanging the water, plucked a leaf and let it fall into the stream close to her. The ant, climbing on it, floated in safety to the bank. Shortly afterwards a bird-catcher came and stood under the tree and laid a snare for the dove, which sat in the branches. The ant, perceiving his design, stung him in his foot. He suddenly threw down the snare and thereupon made the dove take wing.

Or,

Write a letter to a friend, in Syriac, describing to him any interesting event that you have yourself had a part in.

8. Translate into Syriac:—

25

A thirsty crow saw a pitcher with a quantity of water at its very bottom, so that it was inaccessible. He tried a variety of ways, but failed. At last he picked up pebbles and dropped them in one by one, till the surface of water rose sufficiently high to enable him to quench his thirst.

PHILOSOPHY.

Paper-setters—	{	DR. H. STEPHEN, M.A., D.D.
		P. K. CHAKRAVARTI, Esq. M.A.
		DR. P. K. RAY, D.Sc.
		BABU AMBICACHARAN MITRA, M.A.
		DR. RAMDAS KHAN, M.A., PH.D.
		DR. BRAJENDRANATH SEAL, M.A., PH.D.

FIRST HONOURS PAPER.

Examiner—J. R. BANERJEA, Esq., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Only SIX questions to be attempted.

The questions are of equal numerical value.

1. Is memory a fundamental phenomenon? Give a scientific account of Retention, Reproduction, and Recognition.
2. What is the nature of Knowledge? Discuss the conditions of Knowledge in their bearing upon the problem of an external world.
3. Trace psychologically the development of our ideas of Self and Cause.
4. Characterize those higher forms of volitional activity by which the conflict of Impulses is checked. Indicate the sphere and the limitations of the volitional control of thought and feeling.
5. What is Attention? How is it affected by pleasure and pain? Enumerate the nervous concomitants of Attention.

6. What is the task of psychology with regard to the question of free-will, and what is the ulterior philosophical problem ?

7. What are the grounds on which feeling is treated as a separate function or faculty of mind ? Are they valid ?

8. Give the psychological history of the ideas of Time and Space.

9. Explain fully what is meant by the evolution theory of mind. What phenomena from child life are adduced as a probable illustration of it ?

10. What reasons are there for holding the brain to be the chief organ of the mind ?

PHILOSOPHY.

SECOND HONOURS PAPER.

Examiner—DR. HIRAJAL HALDAR, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

The questions carry equal marks.

Answer the questions, noticing differences of view and giving reasons for the view you hold.

Either,

1. What is the End of Ethics ?

Or,

What is the relation of Ethics to (a) Psychology and (b) Politics ?

Either,

2. Is there any distinction between Right and Good ? What is the Highest Good ?

Or,

What is the object of Moral Judgment ?

3. What are the constituent elements of Personality ? Which of them do you consider to be the most fundamental ?

4. What is the seat of Authority in Morals ?

5. Describe the function of the Moral Faculty. Is it evolved ? What do you understand by the evolution of a Faculty ?

6. What is the distinction between a Duty and a Virtue ? Is Benevolence a duty or a virtue ? Give instances of the conflict of duties, and state how the course of duty would be determined in such cases.

PHILOSOPHY.

THIRD HONOURS PAPER.

Examiner—DR. ADITYANATH MUKHERJEE, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Either,

1. (a) Exhibit fully the relation between Philosophy, Psychology, and Natural Science, defining and stating the sphere of each, and indicating different views. 16

Or,

(b) Explain fully the meaning of Dialectic, and exhibit clearly the different applications that have been made of Dialectic in Philosophy, and the results arrived at by this method.

Either,

2. (a) Nominalism, Conceptualism, and Realism: explain and illustrate the meanings of these terms in Logic, and the corresponding theories in Philosophy, giving the meaning and different views of Universals. 16

Or,

(b) Explain fully the content and origin of the Idea of Time, and explain and examine the theory which makes Time to be 'subjective' and the theory which makes it to be 'objective', showing the bearing of each on the theory of the world.

3. Pluralism and Monism in Philosophy: explain the meaning of each fully, and discuss the question whether the universe is a 'pluralistic universe' or a monistic one, exhibiting the consequences of each hypothesis. 17

4. Explain fully the distinguishing characteristics of Life and Growth, with illustrations, and discuss the question whether they can be accounted for as products of physical laws. 17

5. Explain fully the doctrine of Parallelism in Philosophy, and examine the view that Parallelism supplies a sufficient explanation of Mind and Body, referring briefly to the history of the theory. 17

Either,

6. (a) Explain the nature of Personality and the ground of Personal Rights, and the relation between the individual person and the Absolute. Does the Idea of the Absolute involve Necessitarianism? 17

Or,

(b) Analyse fully the Idea of the Absolute, and state and examine the difficulties which stand in the way of conceiving God as Absolute Being.

PHILOSOPHY.

FOURTH HONOURS PAPER.

Examiner—DR. HIRALAL HALDAR, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Either,

1. Define Religion, and point out its relation to (a) Science and (b) Art. 17

Or,

Distinguish between Natural and Revealed Religion. How are they related to Morality?

Either,

2. Analyse the Religious Consciousness, and discuss the question whether it is original or derivative. 14

Or,

Determine the character of Causality, and show how it affects our notion of the First Cause and of 'second causes.'

Either,

3. Set forth the Teleological Argument, and examine Kant's objection to it. 14

Or,

Examine the view that the most exalted notion which we can form of the Deity must necessarily be anthropomorphic.

Either,

4. Indicate the character and scope of the theistic proofs. Are they competent to give us an adequate knowledge of the Deity? 14

Or,

Unfold the content of the idea of God as determined by the theistic arguments. Show that 'of all knowledge the knowledge of God is, or at least ought to be, the most progressive.'

5. Examine whether (a) natural evil is consistent with Divine benevolence, (b) moral evil with God's holiness, and (c) human freedom with His prescience. 15

Either,

6. Distinguish between Deism, Theism, and Pantheism. Show that 'in each one's mind, left to the play of its own laws without foreign disturbance, there is a native provision for monotheism. 14

Or,

Give a critical exposition of Materialism as a theory of the universe. Show that 'materialism is inconsistent with its own theory of knowledge.'

7. Is the question of Future Life connected in any way with Religion? Examine the ground on which belief in such a life rests.

PHILOSOPHY.

FIFTH HONOURS PAPER.

Examiner—BABU KRISHNACHANDRA BHATTACHARYA, M.A.

Only six questions to be answered.

The questions are of equal numerical value.

Candidates are required to give their answers in their own words as far as practicable.

1. What are the contributions of Descartes to modern thought? Fully discuss the question.
2. Give a critical account of Spinoza's monism.
3. State and examine Berkeley's idealism and compare it with what is called objective idealism.
4. Give an exposition of Hume's Theory of Substance and compare it with (1) that of Locke, and (2) that of Kant.
5. What are Kant's "Ideas of Reason"? Compare their function in the scheme of knowledge with that of the "Categories of the Understanding."
6. State and examine Kant's ethical position.
7. Write short notes on: occasionalism, pre-established harmony, empiricism, phenomenalism, and noumenal freedom.
8. Is philosophy progressive like the sciences? Give reasons for your answer.

PHILOSOPHY.

SIXTH HONOURS PAPER.

Examiner—DR. W. S. URQUHART, M.A., D.PHIL.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. What, according to Hume, is the foundation of all our conclusions from Experience? 15

What are his sceptical doubts concerning the operations of the Understanding and what is his sceptical solution of these doubts? In this connexion, explain and criticize Hume's conclusion: 'All these operations are a species of natural instincts which no reasoning or process of the thought or understanding is able either to produce or to prevent.'

Either,

2. 'As a knowing subject man is not determined by the eternal consciousness, but is a reproduction of it, and therefore a free cause.' Expound and criticize. 15

Or,

'The uniform order of nature and our knowledge of that order have a common source in a spiritual principle.' Explain and discuss.

3. Is there a Natural History of Experience? Discuss the ques- 20
tion, contrasting the standpoints of Hume and Green.
4. Write an essay on *any one* of the following topics:— 50
- (a) Empiricism means the habit of explaining whole by parts, and Rationalism means the habit of explaining parts by wholes.
 - (b) The facts around us are *sub specie eternitatis* perfectly good, and *sub specie temporis* destined to become perfectly good.
 - (c) Finalism and Mechanism.
 - (d) Complete Living.
 - (e) The Meaning of Life.
 - (f) The Psychology of War.
 - (g) The State in Relation to the Moral Life.

PHILOSOPHY.

Paper-setters.— { DR. H. STEPHEN, M.A., D.D.
BABU AMBICACHARAN MITRA, M.A.
DR. RAMDAS KHAN, M.A., PH.D.

FIRST PASS PAPER.

Examiners.— { BABU KRISHNACHANDRA BHATTACHARYY A,
M.A.
BABU HEMCHANDRA DE, M.A.
BABU KHAGENDRANATH MITRA, M.A.
BABU SUSILKUMAR MITRA, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Either,

1. (a) Define Psychology and point out its relation to (i) Ethics 17
and (ii) Metaphysics.

Or,

- (b) What are the methods of research available to the psychologist? Determine their relative values.

Either,

2. (a) Explain the nature and conditions of Attention. How is it 17
related to Consciousness?

Or,

- (b) Distinguish between Sensation, Perception, and Apperception. How does Acquired Perception differ from Perception?

3. Trace the development of the idea of Self in the human mind. 16
Is it wholly the outcome of association?

Either,

4. (a) Determine the character, forms, and scope of the Laws of 17
Association. Are they adequate to account for all psychoses?

Or,

(b) Indicate the character and course of Mental Development. Is it wholly due to circumstances?

Either,

5. (a) Distinguish between Emotion, Mood, and Sentiment. 17
Analyse the Sentiment of the Sublime.

Or,

(b) Distinguish between Appetite, Desire, and Affection. How are they related to Instinct?

Either,

6. (a) Distinguish between Deliberation, Resolution, and Effort. 16
How is Effort connected with the Consciousness of Power?

Or,

(b) Explain the character and conditions of Belief. How is Belief related to Action?

PHILOSOPHY.

SECOND PASS PAPER.

Examiners— $\left\{ \begin{array}{l} \text{DR. P. D. SASTRI, M.A., PH.D.} \\ \text{DR. W. S. URQUIHART, M.A., D.PHIL.} \\ \text{DR. ADITYANATH MUKHERJEE, M.A., PH.D.} \\ \text{BABU ABINASCHANDRA MAJUMDAR, M.A.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

Only SIX questions to be attempted.

The questions are of equal numerical value.

1. 'Ethics is more closely related to Philosophy than to the natural sciences.' Fully explain this statement.
2. Discriminate between the psychological and the ethical aspect of Springs of Action, and expound the doctrine of their ethical gradation.
3. Examine the psychological presuppositions on which all Hedonistic systems are based. Can an altruistic system be erected on a Hedonistic basis?
4. Show how the question as to the nature of the Ethical End is connected with the question as to the true nature of the Self.
5. 'The realization of human personality means its realization in Society.' Fully explain this.
6. Explain fully what you mean by the Standards of Judgment.
7. Discuss carefully the theories which admit but mistake obligation.
8. It has been said that the idea of Self-determination combines the Libertarian and the Determinist theory. Explain the position.
9. Discuss the problem of Sin, noticing the following points:—(a) existence of, (b) nature of, (c) recovery from, and (d) responsibility for.

PHILOSOPHY.

THIRD PASS PAPER.

REV. G. EWAN, M.A.
Examiners— DR. RAMDAS KHAN, M.A., PH.D.
 DR. N. N. SENGUPTA, M.A., PH.D.
 P. K. CHAKRABARTI, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. State clearly the meaning, province, and use of Philosophy, and the relation of Philosophy to Natural Science, and to Theology. 16

Either,

2. (a) Explain fully the meanings of Dogmatism and Scepticism in Philosophy, and also the meaning of Criticism and its bearing on these two methods. 17

Or,

(b) Explain the meanings of, and difference between, Conditioned and Unconditioned in Philosophy. On what grounds do some say that it is impossible to know anything about what is unconditioned? Give your own opinion, with reasons.

3. Explain the difference between a living Organism and a piece of Mechanism, and give your opinion as to whether Life can be derived from Mechanism, with your reasons. 17

Either,

4. (a) State the principal hypotheses as to the connexion between Soul and Body, and give your own conclusion, with reasons. 17

Or,

(b) Explain the meaning of Cause and Causality in nature, and also that of Energy and Conservation of Energy, and the relation between Energy and Causality.

5. Explain the meaning of Self and the Identity of Self, and state what reasons there are for thinking that the Self will continue to exist after the present life. 17

Either,

6. (a) What is meant by saying that the world is subject to Moral Government? What arguments may be advanced against this belief? Give your own conclusion, with reasons. 16

Or,

(b) What is meant by saying that the world is pervaded by Universal Reason? What grounds are there for believing that it is so? What arguments may be advanced against the belief? Give your conclusion.

HISTORY.

Paper-setters—{ W. A. J. ARCHBOLD, ESQ., M.A.
 { G. ANDERSON, ESQ., M.A.
 { A. E. BROWN, ESQ., M.A., LL.B.
 { W. OWSTON SMITH, ESQ., M.A.
 { W. C. WORDSWORTH, ESQ., M.A.
 { BABU BIPINBIHARI SEN, M.A., B.L.

FIRST HONOURS PAPER.

Examiner—K. S. ZACHARIAH, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Answer Question 1 and FIVE others.

The figures in the margin indicate full marks.

1. Write an essay on the growth of the British Empire from 1600 to 1878. 25
2. 'Charles V was like the Tudors; Philip II, like the Stuarts.' Explain this, and illustrate it especially from the history of the Netherlands during the two reigns. 15
3. Sketch the character of Francis I, and show how it affected the history of France. 15
4. Trace the advances towards the East and North-East made by France from 1476 to 1682. 15
5. Describe the aims of the persons who played the chief parts in the Thirty Years' War. 15
6. Give an account of Austrian foreign policy from 1720 to the outbreak of the Seven Years' War. 15
7. Discuss Napoleon's account of the outbreak of war in 1803 and the breach of the Peace of Amiens. 15
8. How much of the work accomplished in the first two and a half years of the French Revolution can be considered permanent? 15
9. Describe the activities of Napoleon III from 1856 to 1870. What were the causes of the Franco-Prussian War on the French side? 15

HISTORY.

SECOND HONOURS PAPER.

Examiner—K. S. ZACHARIAH, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Not more than SEVEN questions to be attempted.

The questions carry equal marks.

1. Who, and on what grounds, were the possible successors to the throne at the death of Queen Mary, and at the death of Queen Elizabeth?

2. What were the provisions of the Act of Supremacy and the Act of Uniformity (1559)? What were their results?

3. Explain the situation of foreign affairs at the Treaty of Cateau-Cambrésis. What were the possessions of Spain at that time?

4. Show how the Reformation in Scotland differed from that in England. Give a sketch of the situation in Scotland at the Treaty of Edinburgh.

5. Trace in outline the relations between England and France throughout the reign.

6. 'Cecil's design remained the same as Cromwell's, the delivery of English sovereignty by the help of the English parliament from the competition of rival jurisdictions, secular and ecclesiastical, domestic and foreign, and the centralization of the State by means of personal monarchy.'

Explain this statement. From what quarters did this policy encounter resistance?

7. Give some account of the expansion of England during the reign.

8. Trace the history of the Puritans during Elizabeth's reign. Show the connexion of their movement with the growth of party government.

9. In what different parts of the world was the English struggle with Spain carried on? Account for England's success.

10. Give some account of the condition of Ireland at the beginning of Elizabeth's reign. What possible solutions were there of the difficulties there? What policy did Elizabeth adopt?

11. Give some account of the literary movement of the period. Show its connexion with the events of the time.

12. What were the causes of the increase of poverty in the sixteenth century? Give an account of the Poor Law of 1601.

13. Write notes on:—

(a) The Empire.

(b) Henry of Navarre (explaining where Navarro is).

(c) The Council of Trent.

(d) The Guises.

HISTORY.

THIRD HONOURS PAPER.

Examiner—D. R. BHANDARKAR, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Answer the FIRST, SIXTH and EIGHTH, and THREE of the remaining questions.

The figures in the margin indicate full marks.

1. Discuss the claims to 'universal sovereignty' advanced in favour of some of the imperial dynasties that ruled in India before the establishment of the political supremacy of the British. 20

2. Attempt an estimate of the civilization and the administrative system of India in the age of the Maurya Emperors from what you 16

gather from Greek accounts as well as from Chanakya's *Arthashastra*. Compare Chanakya's treatise on the Art of Government with the Code of Manu as manuals of statecraft.

3. Account for the reaction against Buddhism in India under the Gupta Emperors, and illustrate the truth of the remark that the gradual decay of the religion was 'due in the main to causes other than persecution of princes.' To what extent were the literature and architecture of the age influenced by the Hindu revival? 16

4. Add a short historical and geographical note to *each* of the following:—Aornos, Nalanda, Taxila, Barygaza, Chinabhukti, Sakala, Rajgriha, and Girnar. 16

5. Define the positions of the three Tamil kingdoms in Southern India, and give some account of their literature and arts, of their maritime and commercial activity. Do you notice any traces of local self-government in any of these kingdoms? 16

6. To what do you ascribe the slow progress of Islam in India as contrasted with its rapid success in other countries of Western Asia? Characterize the treatment of the Arab conquerors towards the subject population in India. Describe the incidence and operation of the *Jizya*. 16

7. Discuss the foreign origin of the Rajputs. What difference do you notice between the Rajput feudal system and that which prevailed in Mediaeval Europe? Briefly sketch the relations between the Rajput princes and the Mogul emperors from the accession of Akbar to the close of Aurungzeb's reign. 16

8. Compare the aims and principles followed by Asoka and Akbar respectively in organizing their empires. Discuss the merits of Lord Wellesley's political system, and examine the remark: 'The Treaty of Bassein was the greatest diplomatic triumph which the world has ever witnessed.' 16

9. What were the elements of disintegration in the Mogul Empire towards the close of the seventeenth century? Compare the policy and methods followed by Sivaji and Baji Rao I respectively in their attacks on the Mogul Empire. Describe the political outlook of India in 1761. 16

10. Indicate the changes introduced into the Company's system of government in India and its relations with the home government by Charter Acts and other Parliamentary measures from 1772 to 1858. 16

HISTORY.

FOURTH HONOURS PAPER.

Examiner—BABU ADHARCHANDRA MUKHERJEE, M.A.

Candidates are required to give their answers in their own words as far as practicable.

Answer SIX questions only.

The questions carry equal marks.

1. Draw a sketch-map indicating (a) the extent of the Greek world, (b) the extent of the Persian Empire, in 479 B.C. To what extent was any part of the Greek world then under Persian domination?

2. How far was the course of Greek history during the period 479-404 B.C. determined by geographical considerations?
3. What was the origin of the Confederacy of Delos? Narrate the steps by which it was transformed into an Athenian Empire.
4. Discuss the place of Themistocles in the history of Athens.
5. What are the original authorities for the history of this period? Discuss their reliability.
6. Explain:—ostracism, medism, sophist, tyrant, hegemony, cleruchy, Parthenon, hoplite.
7. Examine the general policy of Sparta during this period. How far did this policy determine its internal organization?
8. Write a brief life of Pericles, and discuss his responsibility for the war between Athens and the Peloponnesians.
9. Give a detailed account of the Athenian expedition against Syracuse, illustrated by a sketch-map of the city and surroundings.
10. Write brief notes on: (a) the oligarchic party at Athens during the Peloponnesian War, (b) the fortifications of Athens, (c) the place of oracles in Greek history, (d) Phidias.

HISTORY.

FIFTH HONOURS PAPER.

Examiner—BABU ADHARCHANDRA MUKHERJEE, M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

Answer SIX questions only, of which the NINTH must be one.

The figures in the margin indicate full marks.

1. Describe the distinctions existing between the various classes of the Italian allies and subjects of Rome in the second century B.C. 15
2. Discuss the change that took place in the structure of the Comitia Centuriata in your period. 15
3. Describe the foundation of Roman comedy, and discuss the elements which shaped its growth. 15
4. Discuss the extent to which the old religion retained a hold on the Roman people in your period. 15
5. Write notes on any three of the following:— 15
 - (a) Quintus Fabius Pictor.
 - (b) Sextus Aelius Pactus.
 - (c) Marcus Porcius Cato.
 - (d) Gaius Flaminius.
6. Discuss the policy of Hannibal, and state the reasons for his lack of ultimate success. 15
7. Sketch the main features of the Roman organization of Africa after the fall of Carthage in 146 B.C. 15
8. 'It is only contemptible disingenuousness or weakly sentimentality which can fail to perceive that the Romans were entirely in earnest with the liberation of Greece; and the reason why the plan so nobly projected resulted in so sorry a structure is to be sought only 15

in the complete moral and political disorganization of the Hellenic nation. . . . As things stood it was really necessary at once to put an end to such a freedom, equally pitiful and pernicious.

(MOMMSEN.)

Comment on the above, and discuss the reasons for the failure of the Roman attempt to liberate Greece in 196 B.C.

9. Write an essay on the manner in which the ground was prepared in your period for the revolution that commenced subsequently under the Gracchi. 25

HISTORY.

SIXTH HONOURS PAPER.

Examiner—BABU JADUNATH SARKAR, M.A.

Candidates are required to give their answers in their own words as far as practicable.

Answer Question 10 and FOUR others.

The questions carry the same number of marks.

1. To what extent is it true to say that the Normans introduced feudalism into England as a system of land tenure and asserted it as a means of government?

2. Discuss the causes of the long resistance of the Eastern Empire to the Ottoman Turks.

3. 'Gregory's idea was that all the Christian states should form a universal theocracy.' Examine this statement, and show what means were adopted by Hildebrand to attain this ideal.

4. 'Under his guidance the Transalpine power made its greatest effort to subdue the two antagonists which then threatened and were fated in the end to destroy it—the Papacy and the spirit of municipal independence in Italy.'

Discuss this statement with reference to the power and failure of Frederick Barbarossa.

5. With what truth may it be said that the Crusades and the Hundred Years' War made modern France?

6. What were the chief causes of the doctrine of feudalism?

7. In what ways was the period between the summons of the Model Parliament by Edward I and the death of Richard II important in the development of the parliamentary system?

8. 'Italy came to the close of the Middle Ages without a national or regular government.' Give reasons for this.

9. What were the main provisions of the Golden Bull of Charles IV? What was its effect on the history of the Empire?

10. Write an essay on *one* of the following subjects:—

✓(a) The glory of the thirteenth century.

(b) The Schoolmen.

(c) Chivalry.

HISTORY.

Paper-setters— $\left\{ \begin{array}{l} \text{R. N. GILCHRIST, ESQ., M.A.} \\ \text{N. C. SEN, ESQ., M.A.} \\ \text{BABU BIPINBIHARI SEN, M.A., B.L.} \end{array} \right.$

FIRST PASS PAPER.

Examiners— $\left\{ \begin{array}{l} \text{A. C. DATTA, ESQ., M.A.} \\ \text{BABU SANTOSH CHATTERJEE, M.A.} \\ \text{BABU UPENDRANATH GHOSHAL, M.A.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

Answer Question 10 and FIVE others.

The figures in the margin indicate full marks.

1. Give a short history of Florence under the Medici with special reference to their domestic and foreign policy. 16
2. Explain the importance of the family alliances of Ferdinand the Catholic in promoting the unity of Spain and its development as a European power. 16
3. Briefly sketch the history of the Turkish power from the death of Solyman the Magnificent to the Treaty of Carlowitz, and indicate the causes of its decay. 16
4. Describe the circumstances which led to the accession of Henry of Navarre to the French throne. Discuss the merits of the economic and financial reforms of the Duke of Sully. 16
5. Compare Charles XII and Peter the Great as generals and statesmen. How far may Peter the Great be regarded as 'the creator of Modern Russia'? 16
6. What led to the First Partition of Poland? How far was it due to internal anarchy, how far to the ambition of foreign powers? 16
7. Form an estimate of the character and aims of Mirabeau, and account for his failure to realize his ideal. 16
8. Characterize in some detail the Napoleonic system of government, and show that it was but a survival of the old régime of France. 16
9. Explain the character and importance of the reforms effected in Prussia after the battle of Jena by Stein and his colleagues. 16
- *10. Add a full note to *each* one of the following:— 20
 - (a) the Inquisition; (b) the Treaty of Westphalia; (c) the Pragmatic Sanction; (d) the Committee of Public Safety; and (e) the Sonderbund.

HISTORY.

SECOND PASS PAPER.

Examiners—{ BABU KRISHNADHAN BANERJEE, M.A.
N. K. NAG, ESQ., B.A. (*Cantab*).
S. KHUDA BAKSH, ESQ., M.A., B.C.L.

Candidates are required to give their answers in their own words as far as practicable.

FIVE questions only to be answered.

The questions are of equal numerical value.

1. What were the chief provisions of the Second Act of Supremacy and the Third Act of Uniformity of 1559? State the religious difficulties that these Acts were meant to overcome.

2. Examine the foreign relations of Elizabeth with Spain, France, and Scotland during the first five years of her reign.

3. Give a short account of the career of William of Nassau, Prince of Orange.

4. Examine the purposes of, give an account of, and estimate the results of the following plots:—Ridolfi's Plot; Throgmorton's Plot; Babington's Plot.

5. Give an account of the risings of Desmond and Tyrone in Ireland. Give also a general account of the part played by Ireland in the Roman Catholic schemes against Elizabeth.

6. Estimate the international importance of the various marriages and proposed marriages of Mary, Queen of Scots.

7. Write historical notes on the following:—the Treaty of Cateau-Cambrésis; the murder of Darnley; the Peace of St. Germain; the Massacre of St. Bartholomew's Day.

8. What is the import of the phrase 'The spacious times of Queen Elizabeth'? Give short notes on Edmund Spenser, Christopher Marlowe, Sir Francis Bacon, and Sir Francis Drake.

9. Give an estimate of the character of Queen Elizabeth.

HISTORY.

THIRD PASS PAPER.

Examiners—{ N. C. SEN, ESQ., M.A.
BABU RAMESCHANDRA MAJUMDAR, M.A.
BABU ASWINIKUMAR MUKHERJEE, M.A.

Candidates are required to give their answers in their own words as far as practicable.

Answer TWO questions from EACH group.

The questions carry equal marks.

GROUP A.

1. Trace the progress of Alexander's Campaign in India up to his arrival at the Hyphasis. Discuss the various theories about the site of Aornos.

2. Write a short note on the municipal and revenue administration of Chandragupta Maurya.

3. (a) Describe the relations of China with India during the period from the first century to the end of the reign of Harshavardan.

(b) Give a short account of the Kushan dynasty in India.

4. What are the sources of Southern Indian history ? Narrate briefly the history of the 'Three Kingdoms.'

GROUP B.

5. 'The village communities are little republics, having everything they can want within themselves, and almost independent of any foreign relations.' Discuss this statement of Metcalfe. Describe an Indian village community.

6. Give a short account of the various Mahomedan dynasties of the Deccan.

7. Describe the internal state of India during the time of the Moghuls. Give an account of Sir Thomas Roe's embassy to Jehangir and his impressions about India.

8. Who were the Seiad brothers, and what part did they play in Moghul politics in the eighteenth century ? Narrate briefly the history of the relations of the Mahrattas with the Moghul emperors from 1707 to the third battle of Panipat.

GROUP C.

9. Write a short note on the development of the Indian administrative system during the time of the East India Company. When was its Charter renewed, and what changes did the renewals of its Charter bring about ?

10. Sketch the relations of the East India Company with the Kingdom of Oudh up to the time of its annexation.

11. Discuss the foreign policy of the Marquess of Hastings. Write a short history of his administration.

12. Write short notes on—

- (a) Fox's India Bill ;
- (b) Thomason's land settlement ;
- (c) The affair of William Palmer & Co. ;
- (d) Malcolm's Mission to Persia.

ECONOMICS.

Paper-setters— $\left\{ \begin{array}{l} \text{C. J. HAMILTON, ESQ., M.A.} \\ \text{W. OWSTON SMITH, ESQ., M.A.} \\ \text{M. SUBEDAR, ESQ., B.Sc. (Lond.).} \\ \text{W. C. WORDSWORTH, ESQ., M.A.} \\ \text{J. N. DAS GUPTA, ESQ., B.A. (Oxon).} \\ \text{G. F. SHIRRAS, ESQ., M.A.} \end{array} \right.$

FIRST HONOURS PAPER.

Examiner—T. T. WILLIAMS, ESQ., M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The questions carry equal marks.

Only SIX questions to be attempted.

1. Discuss the relation of economics and ethics. To what extent are the motives of men leading them to economic effort measurable? Are these motives ever unselfish?

2. Is all labour unpleasant? Consider the relation of work to pain with reference to the reward of labour, conditions of work, etc.

3. Why is the interest of landlords opposed to the interest of the rest of the community who have no part in the ownership of land?

4. Discuss the effect of fluctuations in the value of articles of which there is a joint supply or a joint demand.

5. What is meant by "invisible exports" in the balance of indebtedness between two countries? Mention some of the items under this heading in the relation of England and India.

6. Profits are the reward of enterprise. Profits are high in new industries, they are low in old industries. Why do they not disappear altogether?

7. The institution of private property is one of the postulates of modern economic life. When does the need of modifying it in national interest arise?

8. Explain clearly what constitutes demand for capital. In this light discuss the differences in the rate of interest prevailing in old countries like India, new countries like Australia, and in industrially advanced countries like England.

9. On what occasions and in what manner will an increase of population react unfavourably on the material welfare of a country? What remedies would you suggest for checking the evils arising out of it?

10. What are the factors leading to the growth of business ability in a country? How would you account for the backwardness in business enterprise of certain communities and countries?

ECONOMICS.

SECOND HONOURS PAPER.

Examiner—A. BROWN, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Answer SIX questions.

The questions are of equal numerical value.

1. Illustrate the connexion between Politics and Economics from the feudal system, and from modern finance and trade and labour legislation.

2. Discuss the attitude of the State to religious opinion and organizations, and explain what measure of State control is necessary in these matters.

3. Apart from contract, what are the most plausible theories of the origin of the State? Briefly discuss them.

4. *Either*, Explain the nature and sources of Law, showing the difference of ancient, mediaeval and modern, Western and Eastern, ideas and conditions.

Or, What is International Law? Explain its origin, nature, and content. What is its sanction? How far is your answer affected by recent military history?

5. *Either*, What is meant by separation of powers? How is this doctrine applied in England, France, and the United States?

Or, 'It has long been a grave question whether any Government, not too strong for the liberties of its people, can be strong enough to maintain its existence in great emergencies' (LINCOLN). Explain this criticism, and show what can be done to avoid the two evils referred to.

6. *Either*, What are the functions of Government? Distinguish between those which are essential and those which are optional.

Or, Give a short account of modern Socialism, and illustrate the socialistic tendency in modern legislation.

ECONOMICS.

THIRD HONOURS PAPER.

Examiner—C. J. HAMILTON, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

SIX questions only to be answered.

The questions carry equal marks.

1. 'The wider art of wealth which Communism in India represents implies a restatement of the fundamental axioms and postulates of Western Industrial life.'

Carefully discuss the meaning and correctness of this statement.

2. Describe the organization of a typical 'market' for agricultural produce in Bengal. How does it fulfil the conditions of a perfect market as described in Economic theory?

3. It has been said that the special defect of the Indian Currency system is its *inelasticity*. Explain carefully *why* this is so; show the disadvantages that arise from it; and suggest a remedy.

4. What are the principal factors upon which the fluctuations in the Exchange value of the Rupee depend? For what reasons and by what means does Government seek to limit these fluctuations?

5. Classify the various kinds of Irrigation works used in India. What are the main considerations that have to be taken into account in deciding how far the State can undertake an extension of irrigation in a particular district? By what means does Government seek to encourage the development of private works?

6. Describe carefully the Indian Tax system. What are the principles which should govern any extension of taxation in India?

7. What is meant by the 'Transferability of Occupancy Rights'? Why has Government imposed certain limits upon these rights? Discuss the arguments for and against transferability.

8. Explain the origin, extent, and consequences of hoarding in India.

9. Discuss the question of the determination of wages in India. Explain the difficulties attending an inquiry into the annual money wage-income and the real income of a wage-earner in this country.

ECONOMICS.

FOURTH HONOURS PAPER.

Examiner—G. F. SHIRRAS, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Answer FIVE (but no more than five) questions.

1. Discuss the present general rise in prices, in reference to

(a) its causes, and

(b) its effects.

2. Explain carefully the terms 'nominal wages' and 'real wages.'

Describe briefly how you would proceed to show statistically the fluctuation in nominal and real wages over a period of years in the district to which you belong.

3. What bearing, if any, have rent and quasi-rent on prices?

4. State what is called the Quantity theory of money, and distinguish between the cruder forms of the theory and the full statement of the developed theory.

5. Explain the existing Indian monetary system, and the principles upon which it is based. Criticise the following statement: "This system depends for its efficient working upon the maintenance of a favourable exchange."

6. Consider broadly the various methods of giving a preference to inter-imperial trade, and point out the economic difficulties which they respectively present.

7. Discuss the different views as to the advantages of foreign trade. What light does the experience of belligerent and neutral countries since the outbreak of war throw on this problem?

8. What are the chief principles that are applicable to public loans? Particular reference should be made to the Indian rupee loan of 1917, especially regarding (a) the terms of issue, and (b) the period of the loan.

ECONOMICS.

FIFTH HONOURS PAPER.

Examiner—W. C. WORDSWORTH, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Six questions only to be answered, including questions 1 and 2.

The questions carry equal marks.

1. Annotate four of the following:—

(a) For she is not niggardly, like the smith who fashions the Delphian knife for many uses; she makes each thing for a single use, and every instrument is best made when intended for one and not for many uses.

(b) Money was intended to be used in exchange, but not to increase at interest.

(c) Even resident aliens in many places possess such rights, although in an imperfect form: for they are obliged to have a patron.

(d) Next we have to consider how by the side of oligarchy the so-called polity or constitutional government springs up, and how it should be organized. The nature of it will be at once understood from a comparison of oligarchy and democracy: we must ascertain their different characteristics, and, taking a portion from each, put the two together, like the parts of an indenture.

(e) The mere establishment of a democracy is not the only or principal business of the legislator, or of those who wish to create such a state, for any state, however badly constituted, may last one, two, or three days: a far greater difficulty is the preservation of it.

(f) Accordingly we reject the professional instruments and also the professional mode of education in music—and by professional we mean that which is adopted in contests, for in this the performer practises the art, not for the sake of his own improvement, but in order to give pleasure, and that of a vulgar sort, to his hearers.

2. Annotate three of the following:—

(a) For Prudence is but experience: which equally time, equally bestows on all men, in those things they equally apply themselves unto.

(b) The Lawes of Nature oblige *in foro interno*: that is to say, they bind to a desire they should take place; but *in foro externo*, that is, to the putting them in act, not always.

(c) And Covenants, without the Sword, are but words, and of no strength to secure a man at all.

(d) And consequently they that have already instituted a Commonwealth, being thereby bound by Covenant, to own the Actions, and Judgements of one, cannot lawfully make a new Covenant, amongst themselves, to be obedient to any other, in any thing whatsoever, without his permission

(e) But a man may here object, that the Condition of Subjects is very miserable; as being obnoxious to the lusts and other irregular passions of him, or them that have so unlimited a Power in their hands.

3. Summarize Aristotle's treatment in the Politics of the art of money-making. How far does he agree with modern theory?

4. Discuss Aristotle's theory of the function and origin of law. What is his answer to the question, Should the law ever be changed?

5. 'The quest of empire by a State is hardly the same thing as the quest of tyrannical authority by an individual, and it is one thing for an individual to abstain from active political life and quite another for a State to stand aloof from all relations with other communities' (NEWMAN).

Examine from this point of view Aristotle's theory of the end of the State.

6. Write brief notes on—(a) education at Sparta, (b) the communism of Plato, (c) the Ephors, (d) the function of religious worship in the State.

7. What does Hobbes tell us of the circumstances that tend to the dissolution of a Commonwealth?

8. What is Hobbes's definition of Civil Law, and what consequences can be deduced from it? What is the meaning of the statement that unwritten law are Laws of Nature?

9. 'The Polis . . . has its roots in knowledge and real human need, not in ignorance and terror. Its rules of conduct are based not on obedience to imaginary beings, but on serving mankind' (GILBERT MURRAY). Amplify and illustrate.

10. What, if any, is the justification of imperialism as represented by—(a) the Roman, (b) the British Empire? Indicate some of the main differences between these two Empires.

ECONOMICS.

SIXTH HONOURS PAPER.

Examiner—J. N. DAS GUPTA, ESQ., B.A. (Oxon).

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write an Essay on one of the following subjects:—

100

- (a) The British Constitution as a working machine.
- (b) The future relations of England and her Colonies.
- (c) Problems of foreign trade.
- (d) Indian home industries and their development.

ECONOMICS.

Paper-setters—{ M. SUBEDAR, ESQ., B.SC. (*London*).
W. OWSTEN SMITH, ESQ., M.A.
S. C. ROY, ESQ., M.A.

FIRST PASS PAPER.

Examiners—{ J. C. KYDD, ESQ., M.A.
BABU JOGISCHANDRA SINHA, M.A.
P. CHATTERJEE, ESQ.

*Candidates are required to give their answers in their own words
as far as practicable.*

Answer only six questions.

The questions are of equal numerical value.

1. Discuss the relation of Production and Consumption, bringing out clearly how the ultimate control of production lies in the hands of the consumers.

2. 'The standard of living of workmen determines their efficiency. The standard can be maintained at a high level by restricting the size of the family' Explain this doctrine, and mention any exceptional circumstances of which you can think, in which it will not hold.

3. Discuss the effect of the rate of interest on the growth of capital in a country.

4. How is the value of an article determined? What is meant by marginal utility?

5. Parents have a heavy responsibility regarding the choice of occupation by their sons. What evils would result if the parents were led away by mere sentiment or prejudice and did not inquire properly into the prospects?

6. Consider the social and economic effects of variations in the purchasing power of money.

7. Consider the different economic uses to which land is put, in order of their intensity.

8. Why are the wages of women low compared with the wages of men for the same kind of work or for work requiring the same exertion?

9. 'The national dividend is a continuous stream from which all the factors of production are rewarded.' Examine this statement, and mention in particular how the owners of land are rewarded.

10. Criticize the following doctrine :—'When giving charity, the rich are only giving back in part what they have stolen from the poor, and for this they deserve no credit.'

ECONOMICS.

SECOND PASS PAPER.

Examiners—{ P. C. BANERJEE, ESQ., B.Sc. (London).
 P. MUKHERJEE, ESQ., M.A.
 R. N. GILCHRIST, ESQ., M.A.

*Candidates are required to give their answers in their own words
 as far as practicable.*

Answer only SIX questions.

The questions are of equal numerical value.

1. Attempt a reconciliation of the principal theories of the origin of the State, i.e. show what you believe to be the elements of truth in each.
 2. Write a short essay on 'Democracy', showing what are its advantages and disadvantages, and explain how order and efficiency can best be reconciled with personal liberty.
 3. Explain the system of representation in the two houses of the Prussian (not German) legislature before the war.
 4. What are the advantages and what the evils of party government? Can any practical, working alternative be suggested? What lessons can be learned from the experience of the Great Powers in recent years?
 5. What do you understand by 'Paternalism' and 'Laissez-faire', as applied to systems of government? Do you think that the history of the great war has justified either?
 6. Describe briefly the evolution of cabinet government. How does the English ministry differ from those in France and Italy in normal times? What do you think will be the future of the English cabinet?
 7. Give a sketch of the powers and duties of the President of the United States.
 8. Compare the position of the judicature in England, France, and the United States, explaining the constitutional powers of the judges, and the way in which they are appointed.
 9. Write notes on 'Nationality', 'Empire', 'Federal government', 'Confederation.' Would a universal application of the principle of Nationality be possible or desirable?
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ECONOMICS.

THIRD PASS PAPER.

Examiners—{ J. C. COYAJEE, ESQ., B.A.
S. C. BOSE, ESQ.
DR. P. BANERJEE, D.Sc. (Lond.).

Candidates are required to give their answers in their own words as far as practicable.

Answer Question 1 and any FIVE of the remaining ten.

The figures in the margin indicate full marks.

1. Contrast the merits and demerits of the *Khas* and *Zemindari* systems of land revenue settlement in India. Lord Cornwallis discarded the *Khas* system in favour of the *Zemindari* system; while the present-day administrators prefer the former to the latter. Give reasons which have led to this change of views. 20
2. Enumerate the chief causes of agricultural indebtedness in this country. Give a brief account of the measures taken by Government to provide a remedy for each of these causes. 16
3. Define clearly the following:— 16
 - (a) Cadastral Survey.
 - (b) Record of Rights.
 - (c) Countervailing Excise duties.
 - (d) Alienation of land.
 - (e) Net assets.
 - (f) Enfranchised Inam Tenures.
 - (g) Takavi grants.
 - (h) Remission and suspension of revenue.
4. Discuss the respective facilities and difficulties of setting up and working a cotton mill in India and in England. 16
5. State the foundation principles of co-operative credit societies, and discuss the educative effects that flow from the practice of these principles. 16
6. Estimate the efficacy of the following as remedies against Indian famines:— 16
 - (a) Increased irrigation.
 - (b) Increased transport facilities.
 - (c) Increased industrialism.
7. State the arguments for and against the introduction of gold currency in India. 16
8. What are the principal elements which, according to Marshall, constitute industrial efficiency? Which of these elements are inherent in Indian character, and which are difficult to assimilate? 16
9. The accounts of the Government of India are divided into four sections, as follows:— 16
 - (a) Revenue account.
 - (b) Capital account.
 - (c) Debt and Deposit account.
 - (d) Balances.

Explain clearly what each of these signifies.

10. Write a brief critical note (not exceeding *five* pages) on the *hoarded wealth* of India. 16

11. It is said that in India the rate of interest is not *always* determined by the conditions of supply and demand of capital, and that the co-operative credit societies are tending to the establishment of what is called a *market rate of interest*. 16

Expound this proposition.

B.A. & B.Sc. EXAMINATIONS.

1918.

MATHEMATICS.

(THE HON'BLE SIR ASUTOSH MUKHERJEE,
KT., C.S.I., M.A., D.L. ETC.

THE HON'BLE BABU MAHENDRANATH RAY,
C.I.E, M.A., B.L.

Paper-setters—{ DR. SYAMADAS MUKHERJEE, M.A., PH.D.
RAI ABINASCHANDRA BOSE, BAHADUR, M.A.
BABU INDUBHUSHAN BRAHMACHARI, M.A.,
B.L.

{ DR. C. E. CULLIS, M.A., PH.D.

FIRST HONOURS PAPER.

Examiner—BHUPATIMOHAN SEN, ESQ., M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

*Candidates are permitted to attempt SIX questions, but not more
than FOUR from any group.*

GROUP A.

1. Give a general enunciation of the binomial theorem. Assuming it to be true for all positive integral indices, prove it generally for all indices. Find the value of

$$1 - \frac{n}{1} \cdot \frac{1+x}{1+nx} + \frac{n(n-1)}{1 \cdot 2} \cdot \frac{1+2x}{(1+nx)^2} - \frac{n(n-1)(n-2)}{1 \cdot 2 \cdot 3} \cdot \frac{1+3x}{(1+nx)^3} + \dots$$

2. The arithmetic mean of the m th powers of n positive quantities is greater than the m th power of their arithmetic mean in all cases except when m lies between 0 and 1. Prove this.

Show that

$$\frac{1}{\sqrt{2n+1}} > \frac{1 \cdot 3 \cdot 5 \dots (2n-1)}{2 \cdot 4 \cdot 6 \dots 2n}$$

when n is any positive integer.

3. Show that the expansion of a^x in ascending powers of x is convergent for all values of x .

Test the nature of the series

$$1 + \frac{2^2}{3^2} + \frac{2^2}{3^2} \cdot \frac{4^2}{5^2} + \frac{2^2}{3^2} \cdot \frac{4^2}{5^2} \cdot \frac{6^2}{7^2} + \dots$$

4. Establish the law of formation of the successive convergents of a simple continued fraction. If $\frac{p_n}{q_n}$ be the n th convergent to a simple continued fraction, show that

$$p_n q_{n-1} - q_n p_{n-1} = (-1)^n.$$

If $\frac{p_1}{q_1}, \frac{p_2}{q_2}, \dots$ be the convergents to

$$1 + \frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \dots + \frac{1}{n} + \dots$$

ad infinitum, show that

$$p_n = (n-1)p_{n-1} + (n-1)p_{n-2} + (n-2)p_{n-3} + \dots + 3p_2 + 2p_1 + 2.$$

5. Find the sum of the first n terms of the series whose r th terms are (1) $\frac{2r+1}{r^2(r+1)^2}$, (2) r^p , where p in (2) is a positive integer.

6. Prove that if two rows or two columns of a determinant are equal, the determinant vanishes.

Obtain the value of the determinant

$$\begin{vmatrix} 1 & bc+ad & b^2c^2+a^2d^2 \\ 1 & ac+bd & a^2c^2+b^2d^2 \\ 1 & ab+cd & a^2b^2+c^2d^2 \end{vmatrix}$$

$$\begin{vmatrix} 1 & bc+ad & b^2c^2+a^2d^2 \\ 1 & ac+bd & a^2c^2+b^2d^2 \\ 1 & ab+cd & a^2b^2+c^2d^2 \end{vmatrix}$$

$$\begin{vmatrix} 1 & bc+ad & b^2c^2+a^2d^2 \\ 1 & ac+bd & a^2c^2+b^2d^2 \\ 1 & ab+cd & a^2b^2+c^2d^2 \end{vmatrix}$$

as a product of six factors.

GROUP B.

7. If any polynomial $f(x)$ changes sign between any two real quantities, an odd number of real roots of the equation $f(x)=0$ lies between them.

Prove the proposition.

Show that the equation

$$\frac{Ax^2}{x-a} + \frac{Bx^2}{x-b} + \frac{Cx^2}{x-c} = x-d$$

cannot have an imaginary root, where a, b, c are numbers all different from one another.

8. If the sum of three quantities vanish, show that they are the roots of a cubic of the form $x^3 + qx - r = 0$.

If α, β, γ are its roots, find $\Sigma \alpha^7$ in terms of q and r .

9. Either, Obtain the relation between the roots and the coefficients of a general equation of the n th degree.

Or, Find the value of $\Sigma (\alpha - \beta)^2 (\gamma - \delta)^2$ in terms of the coefficients, where $\alpha, \beta, \gamma, \delta$ are the roots of the quartic

$$x^4 - px^3 + qx^2 - rx + s = 0.$$

10. Explain what you understand by a general homographic transformation.

If α, β, γ are the roots of a cubic, prove that the equation whose roots are $\frac{\beta\gamma - \alpha^2}{\beta + \gamma - 2\alpha}$, &c., may be obtained by a homographic transformation.

11. Enunciate Sturm's theorem. Find the real positive root of the equation $x^4 - 2x^3 - 3x^2 + 10x - 4 = 0$, correct to three places of decimals.

12. Prove Newton's theorem on the sums of the powers of the roots of an equation of the n th degree.

MATHEMATICS.

SECOND HONOURS PAPER.

Examiner—BHUPATIMOHAN SEN, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Answer EIGHT questions only.

The questions are of equal numerical value.

1. Two straight lines which include an angle γ are drawn on an inclined plane, and their inclinations to the horizon are α and β respectively. Find the sine of the inclination of the plane to the horizon.

2. If O and I are the orthocentre and the incentre of a triangle ABC , and if R and r are the radii of the circumscribed and inscribed circles, prove that

$$OI^2 = 2r^2 - 4R^2 \cos A \cos B \cos C.$$

If the inscribed circle touches the sides of the triangle ABC in A', B', C' , and if ρ_1, ρ_2, ρ_3 are the circumradii of the triangles $B'IC', C'IA', A'IB'$, prove that

$$2\rho_1\rho_2\rho_3 = Rr^2.$$

3. Determine the coefficients in the expansion

$$\frac{\sin n\theta}{\sin \theta} = A_1(2 \cos \theta)^{n-1} - A_3(2 \cos \theta)^{n-3} + A_5(2 \cos \theta)^{n-5} - \dots,$$

and also those in the expansion

$$\frac{\sin n\theta}{\sin \theta} = B_1 \cos \theta - B_2 \cos^3 \theta + B_3 \cos^5 \theta - \dots$$

when n is an even integer.

4. Resolve $x^{2n} - 2x^n \cos \alpha + 1$ into quadratic factors.

If A, B, C, D, \dots are the angular points of a regular polygon of n sides inscribed in a circle whose centre is O , and if P is any point inside the circle, show that

$$PA^2 \cdot PB^2 \cdot PC^2 \dots = OA^{2n} - 2OA^n \cdot OP^n \cdot \cos n\theta + OP^{2n},$$

where θ is the angle POA .

5. Obtain the exponential values of $\cos \theta$ and $\sin \theta$ when θ is a real angle.

If r and x are numerically less than 1, prove that

$$\log_e \sqrt{1-2r \cos \theta + r^2} = -[r \cos \theta + \frac{1}{2}r^2 \cos 2\theta + \frac{1}{3}r^3 \cos 3\theta + \dots],$$

and evaluate the sum

$$1 + (r \sin \theta) \cdot x + (r^2 \sin 2\theta) \cdot \frac{x^2}{2!} + (r^3 \sin 3\theta) \cdot \frac{x^3}{3!} + \dots$$

6. Find the sum of the reciprocals of the squares and the sum of the reciprocals of the fourth powers of the odd integers. Hence show that

$$\frac{1}{3^4} + \frac{3}{5^4} + \frac{6}{7^4} + \dots + \frac{\frac{1}{2}n(n+1)}{(2n+1)^4} + \dots = \frac{\pi^2}{64} \left(1 - \frac{\pi^2}{12}\right).$$

7. If $S = ax^2 + 2hxy + by^2 + 2gx + 2fy + c$ is an expression of the second degree which can be converted into the form $Ax^2 + By^2 + C$ by a transformation of rectangular coordinates, find A , B , and C . When is a transformation into this form impossible?

Find the conditions that the equation $S=0$ shall represent two parallel straight lines, and show that the perpendicular distance between the two lines is then

$$2 \left[\frac{g^2 - ac}{a(a+b)} \right]^{\frac{1}{2}}.$$

8. Find the equation of the pair of straight lines joining a given point to the points of intersection of a given straight line and a given conic.

Find the envelope of chords of the hyperbola $xy=a^2$ which subtend a given angle at the point (x', y') of the curve.

9. Find the radius of curvature and the coordinates of the centre of curvature at any point of the parabola

$$y^2 = 4ax.$$

Prove that the product of the radii of curvature at the feet of the normals drawn from any point to a parabola is eight times the cube of the distance of that point from the focus.

10. Find the equation representing the pair of tangents which can be drawn from the point (x', y') to a conic represented by the general equation of the second degree. What does this equation become when (x', y') is a focus?

Tangents are drawn to the ellipse

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$$

from any point T on a given hyperbola confocal with the ellipse. If 2θ is the angle between these two tangents, show that $\sin \theta$ varies inversely as CD , where CD is the semi-diameter conjugate to CT of the ellipse through T which is confocal with the given ellipse.

11. Find the equations of the tangent and normal at any given point on the conic

$$\frac{l}{r} = 1 + e \cos \theta.$$

Prove that the equation of the director circle of the conic is

$$r^2(1-e^2) + 2elr \cos \theta - 2l^2 = 0.$$

12. Find the general equation of a conic which has (1) simple contact, (2) three-point contact, (3) four-point contact with a given conic at a given point on it.

Find the equation of the parabola having four-point contact with the ellipse

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$$

at the point P whose eccentric angle is ϕ , and prove that its latus rectum is $\frac{2CD^3}{ab}$, where CD is the radius of the ellipse conjugate to CP .

MATHEMATICS.

THIRD HONOURS PAPER.

Examiner—DR. SYAMADAS MUKHERJEE, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

Only SIX questions to be answered.

The questions are of equal numerical value.

1. If S be the area of a triangle in a plane σ and S' that of its projection on a plane σ' , show that $S' = S \cos \theta$, where θ is the angle between σ and σ' .

Find the area of a triangle the co-ordinates of whose vertices are

$$(0, 0, 0), (x_1, y_1, z_1), (x_2, y_2, z_2).$$

2. Show that the equations of any two straight lines, which do not lie in the same plane, can be reduced to the forms $y = mx, z = c$ and $y = -mx, z = -c$, referred to rectangular axes.

Find the surface generated by a straight line which meets the above two straight lines and is perpendicular to a third given straight line.

3. Investigate the condition of perpendicularity of two planes represented by the equations

$$Ax + By + Cz + D = 0 \text{ and } A'x + B'y + C'z + D' = 0.$$

Find the equation of a plane which contains the points $(0, 0, 0)$ and (a, b, c) and is perpendicular to the plane containing the points

$$(0, 0, 0), (b, c, a), (c, a, b).$$

4. Find the general equation of a cone of the second degree passing through the axes of co-ordinates.

Show that $x^2 + y^2 + z^2 - 2yz - 2zx - 2xy = 0$ is a cone which touches the co-ordinate planes.

5. Find the equation of an ellipsoid referred to three conjugate diameters as axes.

A tangent plane to an ellipsoid meets three conjugate diameters at three points equidistant from the centre of the ellipsoid; show that the square of the distance of each point from the centre is equal to the sum of the squares of the semi-axes of the ellipsoid.

6. Show that every section of an ellipsoid is an ellipse.

Find the area of the section of the ellipsoid

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1$$

by the plane $lx + my + nz = 0$.

7. Show that all points of an ellipsoid, at which the tangent plane passes through a given point O , lie on a plane, the polar plane of O .

Find the equation of the polar plane of any point O lying on a given diameter of an ellipsoid, noticing the special cases when O is taken at the origin and when O is taken at an infinite distance along the diameter.

8. Show that through each point of the paraboloid $x^2 - y^2 = 2z$ two generators can be drawn.

Find the locus of points on the above paraboloid at which the generators are at right angles.

9. Find the conditions that the surface represented by the general equation of the second degree may be a surface of revolution.

Show that $x^2 + y^2 + z^2 + yz + zx + xy = 0$ represents an ellipsoid of revolution the squares of whose semi-axes are 2, 2, $\frac{1}{2}$.

10. Find the direction cosines of the normal at any point (x', y', z') of the ellipsoid in the form $\frac{px'}{a^2}, \frac{py'}{b^2}, \frac{pz'}{c^2}$, where p is the perpendicular from the centre on the tangent plane at (x', y', z') .

The normal at any point P of an ellipsoid meets the principal planes at G_1, G_2, G_3 ; show that PG_1, PG_2, PG_3 are in a constant ratio.

11. Explain fully how you derive the relations

$$i^2 = j^2 = k^2 = ijk = -1,$$

where i, j, k are three mutually perpendicular unit vectors.

If $\rho = ix + jy + kz$ and $\sigma = ix' + jy' + kz'$ find $S\rho\sigma$ and $V\rho\sigma$.

12. Establish the relation

$$V_a(\beta + \gamma) = V_a\beta + V_a\gamma,$$

and interpret it dynamically.

MATHEMATICS.

FOURTH HONOURS PAPER.

Examiner—DR. SYAMADAS MUKHERJEE, M.A., PH.D.*Candidates are required to give their answers in their own words as far as practicable.**You are permitted to attempt EIGHT questions only.**The questions carry equal marks.*

1. Find, by Maclaurin's Theorem, the first five terms in the expansion of

$$(1+x)^{\frac{1}{x}}$$

in ascending powers of x .

2. Find the limiting value of

$$(a^x + x)^{\frac{1}{x}}$$

when $x=0$.

3. Find a point such that the sum of the squares of the perpendiculars drawn from it to the sides of a given triangle shall be a minimum.

4. Determine the asymptotes of

$$x^2(x+y)^2 + 2ay^2(x+y) + 8a^2xy + a^3y = 0.$$

5. If the inverse of a conic be taken, show that the origin is a double point on the inverse curve, and that it is a conjugate point for an ellipse, a cusp for a parabola, and a node for a hyperbola.

6. Prove that the value of the radius of curvature at the origin in the curve

$$6y = 2x^2 + 3xy - 4y^2 + x^3$$

is $\frac{3}{2}$.

7. Perform the integration

$$\int \frac{dx}{x^3 - 4x + 3}.$$

8. Prove that

$$(1-e)^{-2k\pi} \int_0^\infty e^{-kx} f(\sin x, \cos x) dx = \int_0^{2\pi} e^{-kx} f(\sin x, \cos x) dx.$$

9. Prove that

$$\int_0^\infty \frac{\cos \lambda x dx}{1+x^2} = \frac{\pi}{2} e^{-\lambda}.$$

10. If an ellipse rolls upon a right line, prove that the area of the path described by a focus in a complete revolution is double the area of the auxiliary circle.

11. Prove that the difference between the whole length of the cissoid

$$(a-x)y^2=x^3$$

and its asymptote

$$x=a$$

is

$$2a \{ \sqrt{3} \log (2 + \sqrt{3}) - 2 \}.$$

12. Find a function of x which has the value c when x lies between 0 and a , and the value 0 when x lies between a and l .

13. Solve

$$(\tan^{-1}y - x) \frac{dy}{dx} = 1 + y^2.$$

14. Solve

$$\left(x \frac{dy}{dx} - y \right) \left(x - y \frac{dy}{dx} \right) = 2 \frac{dy}{dx},$$

and examine the singular solution.

15. Solve

$$x \frac{d^2y}{dx^2} - (2x-1) \frac{dy}{dx} + (x-1)y = 0,$$

given that $y = e^x$ is a solution.

MATHEMATICS.

FIFTH HONOURS PAPER.

Examiner—DR. HARIDAS BAGCHI, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

Attempt only FOUR questions from each group.

The questions carry an equal number of marks.

GROUP A.

1. Explain fully the construction and use of the funicular polygon.

2. A heavy uniform rod PQ rests inside a smooth bowl formed by the revolution of an ellipse about its major axis, which is vertical. Show that in the position of equilibrium the rod is either horizontal or passes through a focus.

3. State the principle of Virtual Work.

A pentagon formed of five heavy equal uniform jointed bars is suspended from one corner, and the opposite side is supported by a string from that corner and attached to its middle point, of such length as to make the pentagon regular. Prove that the tension of the string is

$$4W \cos^2 \frac{\pi}{10},$$

where W is the weight of any rod. Find also the reactions at the corners.

4. State clearly the part which *friction* plays in causing a rolling instead of a sliding motion.

A heavy uniform bar rests on a rough horizontal table and is pulled in a direction perpendicular to itself by a string attached to a given point of the bar. Find the point about which the bar will begin to turn.

5. The distances of the angular points and intersection of the diagonals of a plane quadrilateral area from any line in its plane are a, b, c, d , and e respectively. Show that the distance of the centre of mass from the same line is

$$\frac{1}{5}(a+b+c+d-e).$$

Find the centroid of (1) the surface and (2) the volume formed by the revolution of the cardioid $r=a(1+\cos \theta)$ about its axis.

6. Determine the form of a uniform cord under the influence of a central repulsive force which varies as the distance from the centre.

GROUP B.

7. Find the accelerations along the tangent and normal to the path of a particle.

A particle possesses a constant acceleration in a direction inclined at a constant angle to the tangent to the curve described by the particle. Find the intrinsic equation of the curve.

8. Indicate the help which Newton received from the works of his predecessors in evolving the three laws of motion. Which of the laws of motion was really due to him?

9. An imperfectly elastic ball is projected, from a given point in a horizontal plane, against a smooth vertical wall, in a direction making a given angle with the vertical. Find where it strikes the horizontal plane.

The magnitude of the velocity of projection of a particle from a fixed point is constant, but the direction of projection is variable. Investigate the envelope of the various trajectories.

10. Define *simple harmonic motion*, and show that a uniform circular motion is the resultant of two simple harmonic motions.

A point executes a simple harmonic motion of amplitude λ in a period 4π seconds. Find (1) the maximum velocity and (2) the acceleration at full displacement.

11. Write a short note on 'a conservative system of forces.'

Find the work done in stretching an elastic string; in terms of the extension and the initial and final tensions.

12. A particle describes an ellipse under the action of an attraction which is always directed towards a focus. Find the law of attraction.

When the particle is at one extremity of the minor axis a blow is given to it, and its subsequent path is a circle. Find the magnitude and direction of the blow.

MATHEMATICS.

SIXTH HONOURS PAPER.

Examiner—DR. HARIDAS BAGCHI, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

Only FIVE questions to be attempted, but not more than THREE from any one group.

The questions are of equal numerical value.

GROUP A.

1. Define the measure of fluid pressure.

Prove that the pressure at any point of a fluid at rest is the same in all directions.

A triangle ABC is exposed to fluid pressure, and it is found that if any straight line PQ be drawn parallel to BC , and at a distance x from A , the pressure on the area APQ is $px^3 + q$, where p and q are constants. Find the pressure at A and at any point on the line BC .

2. Establish the formula $p = \rho g z$, explaining the notation.

If the density of distilled water be the unit of density and 1 foot per second the unit of velocity, find the units of space and time in order that the above formula may give the pressure in ounces.

3. A solid cone is floating in water with its axis vertical and vertex downwards. To cause it to sink until three-fourths of the axis is immersed requires a load of 50 grammes, and to cause four-fifths of its axis to be immersed requires a load of 96 grammes. Show that the specific gravity of the cone is 0.324 in comparison with that of water.

4. Show that the pressure in a given horizontal direction on any surface immersed in a heavy liquid can be obtained by projecting orthogonally the surface on a vertical plane.

Deduce that the resultant pressure on a closed surface is vertical.

Show that the resultant of uniform normal pressure, P , exerted over the convex surface of a hemisphere of radius a , is $\pi a^2 P$ perpendicular to the plane face.

5. Define Metacentre.

A rectangular lamina of sides $2a$ and $2b$ and of density ρ is floating with the side $2b$ vertical in a liquid of density σ ; it receives a small angular displacement in the vertical plane, so that the volume of the liquid displaced remains the same. Find the position of the metacentre, and prove that the condition for stability is

$$\frac{a^2}{6b^2} > \frac{\rho}{\sigma} - \frac{\rho^2}{\sigma^2}$$

6. Describe the mercurial barometer, and show how to graduate it.

The readings of a faulty barometer, in which there is some air, are a and b when the true readings are α and β . Find the true reading when the faulty barometer reads c .

GROUP B,

7. Represent on the celestial sphere the approximate positions of the Sun and Moon on August 19 at 8 p.m., given the following data:—

Latitude of the place $= 50^{\circ}\text{N.}$

Moon's age at *noon* on August 19 = 14 days 19 hours.

Moon's latitude $= 2^{\circ}\text{S.}$

Show that in Lat. 45°N. the interval between the time of any star's passing due east and its setting is constant.

8. Explain the phenomenon of twilight, and show that its duration depends on the latitude of the place and the declination of the Sun.

Show that twilight lasts all night at latitude $48^{\circ} 50'$ *only* for several nights before and after the summer solstice.

9. State Kepler's three celebrated laws of planetary motion.

Deduce from the Second Law that the combined length of spring and summer is greater than that of autumn and winter.

How is the eccentricity of the Earth's orbit determined, and what is it approximately?

10. Explain 'equation of time' and show graphically that it vanishes four times in the year.

11. Find the mean solar time corresponding to a given instant of sidereal time at Greenwich.

If α and α' are the hour-angles in degrees of the Sun at Greenwich, at t and t' hours mean time, show that the equation of time at the preceding mean noon, expressed in fraction of an hour, is

$$\frac{\alpha't - \alpha t^2}{15(t' - t)}.$$

12. Show how to find the longitude at sea by the chronometer.

Given the Sun's computed hour-angle to be 75°E. when the chronometer indicated 23 hrs. 7 min. 31 sec., find the longitude, the equation of time being +3 min. 55 sec. and the correction for clock error and rate being -1 min. 18 sec.

Explain what is meant by 'clock error and rate.'

MATHEMATICS.

Paper-setters— $\left\{ \begin{array}{l} \text{THE HON'BLE SIR ASUTOSH MUKHERJEE,} \\ \text{KT., C.S.I., M.A., D.L., ETC.} \\ \text{DR. HARIDAS BAGCHI, M.A., PH.D.} \\ \text{RAI ABINASCHANDRA BOSE, BAHADUR, M.A.} \end{array} \right.$

FIRST PASS PAPER.

Examiners— $\left\{ \begin{array}{l} \text{BARU HARILAL CHAUDHURI, M.A.} \\ \text{BARU SURENDRAMOHAN GANGULI, M.Sc.} \\ \text{J. M. BOSE, ESQ., M.A.} \end{array} \right.$

*Candidates are required to give their answers in their own words
as far as practicable.*

Answer any TEN questions.

The questions are of equal numerical value.

1. Obtain a formula for all angles whose cosine is equal to a given quantity, and solve the equation

$$2 \cos^2 x - 3 \cos x + 1 = 0.$$

2. Prove that the two equations

$$\sin^{-1} x = 60^\circ$$

and

$$4x^2 - 3 = 0$$

have a common solution, and find it.

3. Establish the formula

$$\tan^{-1} x + \tan^{-1} y = \tan^{-1} \frac{x+y}{1-xy},$$

and simplify this when $xy=1$.

4. Find the radii of the escribed circles of a triangle in terms of its sides.

The sides of a triangle are 5 ft., 8 ft., and 5 ft. respectively. Prove that two of the escribed circles are equal.

5. Prove De Moivre's formula

$$\cos n\theta + i \sin n\theta = (\cos \theta + i \sin \theta)^n,$$

when n is a positive integer. Consider, in particular, the case when $n=2$, and hence verify the identities

$$\cos 2\theta = \cos^2 \theta - \sin^2 \theta,$$

$$\sin 2\theta = 2 \sin \theta \cos \theta.$$

6. Show that $\sin x = x - \frac{x^3}{3!} + \frac{x^5}{5!} - \dots$, where x is the circular measure

of an angle.

Write down the series for $\sin 11^\circ 15'$.

7. Prove that $\sin x = \frac{e^{ix} - e^{-ix}}{2i}$, where $i^2 = -1$. What form does this relation assume when x is a multiple of two right angles?

8. Calculate the distance between two points whose Cartesian coordinates are (x_1, y_1) and (x_2, y_2) .

Can you find a point equidistant from the four points $(a \cos \alpha, a \sin \alpha)$, $(a \cos \beta, a \sin \beta)$, $(a \cos \gamma, a \sin \gamma)$, and $(a \cos \delta, a \sin \delta)$?

9. Determine the condition that the two straight lines

$$y = m_1x + c_1 \text{ and } y = m_2x + c_2$$

may be parallel.

If $y = \tan \alpha \cdot x$ and $y = x$ are parallel lines, prove that $\alpha = (4n+1) \frac{\pi}{4}$, where n is an integer, positive or negative.

10. Plot the positions of the points

$$(a, a), (-a, a), (-a, -a), (a, -a),$$

and show that they form a square circumscribed about the circle

$$x^2 + y^2 = a^2.$$

11. Find the centre and radius of the circle

$$x^2 + y^2 + 2gx + 2fy + c = 0,$$

and also the area of an equilateral triangle inscribed in it.

12. Express the general equation of a tangent to the parabola $y^2 = 4ax$ in the form $y = mx + \frac{a}{m}$, and derive the equations of the two tangents which are equally inclined to the coordinates axes.

13. If ϕ denote the eccentric angle of a point on the ellipse $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$, show that the coordinates of the point may be written $(a \cos \phi, b \sin \phi)$.

The distance of a point on the conic $\frac{x^2}{6} + \frac{y^2}{2} = 1$ from the centre is 2. Find the eccentric angle.

14. Write a short note on the hyperbola $\frac{x^2}{a^2} - \frac{y^2}{b^2} = 1$, explaining clearly

how it consists of two *distinct* infinite branches. Prove that the above hyperbola represents the locus of the *variable* point $(a \sec \theta, b \tan \theta)$, where θ is a parameter.

MATHEMATICS.

SECOND PASS PAPER.

Examiners— $\left\{ \begin{array}{l} \text{BABU RAICHARAN BISWAS, M.A.} \\ \text{BABU SATISCHANDRA ROSE, M.A.} \\ \text{BABU MANMATHANATH RAY, M.A.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

Attempt only TEN and no more than TEN questions.

The figures in the margin indicate full marks.

1. Find from first principles the differential coefficient of $\cos x$. 10

If $\cos y = \frac{b + a \cos x}{a + b \cos x}$, find $\frac{dy}{dx}$.

2. If $y = x^4 \log x$, prove that 10

$$\frac{d^6 y}{dx^6} + \frac{24}{x^2} = 0.$$

3. Enunciate Taylor's Theorem. 10

Find the first three terms in the expansion of $\tan x$ in ascending powers of x .

4. Divide the number 8 into two such parts that (1) the sum of the squares of the two parts may be a minimum, and (2) the product of the two parts may be a maximum. 10

5. Prove that the subtangent is of constant length in the curve 10

$$\log y = x \log a.$$

6. Prove that the polar subnormal is constant in the curve 10

$$r = a\theta.$$

7. Find the radius of curvature at any point on the parabola 10

$$x^2 = 4my.$$

8. Perform the integrations: 10

$$(1) \int \sqrt{\frac{a+x}{a-x}} dx; \quad (2) \int \frac{dx}{x^2 - x - 6}.$$

9. Perform the integrations: 10

$$(1) \int e^{x^2} x^2 dx; \quad (2) \int \frac{x dx}{x^2 + 2x - 3}.$$

10. Prove that

10

$$\int_a^b \sqrt{(x-a)(b-x)} = \frac{\pi}{8} (b-a)^2.$$

Or,

$$\int_0^\infty e^{-ax} \sin mx dx = \frac{m}{a^2 + m^2}.$$

11. Calculate the area of the ellipse

10

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1.$$

12. Find length of the logarithmic curve

10

13. Define the intrinsic equation of a curve, and obtain it for the cardioid $r = a(1 - \cos \theta)$.

10

14. Solve

$$\frac{dy}{dx} + \frac{y}{x} = x^2.$$

10

15. Solve

$$2x \frac{dy}{dx} + \left(\frac{dy}{dx} \right)^2 = 0.$$

10

MATHEMATICS.

THIRD PASS PAPER.

Examiners— $\left\{ \begin{array}{l} \text{BARU RAJANIKANTA BARAT, M.A.} \\ \text{BABU SARADAPRASANNA DAS, M.A.} \\ \text{BABU SUDHANSUKUMAR BANERJEE, M.Sc.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

Only NINE questions to be attempted, but not more than SIX from any one group.

The questions are of equal numerical value.

GROUP A.

1. Establish the formula $W = Vsw$, explaining the notation.

Show how to find the specific gravity of a mixture of given weights of different substances whose specific gravities are given.

2 Describe Bramah's Press, and state the hydrostatic principle it exemplifies.

3. If two liquids which do not mix together meet in a bent tube, the heights of their upper surfaces above their common surface will be inversely proportional to their densities. Prove this.

Is the bent tube required to be of uniform bore?

4. An equilateral triangle is vertically immersed in water with one side in the surface, which is exposed to atmospheric pressure. Find the resultant pressure on the triangle, given that the length of a side is 3 feet, the pressure of the atmosphere is 15 pounds-weight to the square inch, and the mass of 1 cubic foot of water is 62.5 pounds.

5. Define Centre of Pressure.

A rectangle is immersed vertically in a heavy homogeneous liquid with two of its sides horizontal and at depths a and b below the surface. Find the depth of the centre of pressure.

6. Find the conditions of equilibrium of a heavy body freely floating in a liquid.

An elastic bladder containing air just floats at the surface of the sea. What will happen if it be plunged to a great depth in the sea and then released?

7. What is meant by the 'height of the homogeneous atmosphere'?

Calculate this height, given that the specific gravity of air is 0.0013, the specific gravity of mercury is 13.596, the height of the mercury barometer is 30 inches, and the weight of a cubic foot of water (the standard substance) is that of 62.5 pounds.

8. A wine-glass, in the shape of a hollow right circular cone, 4 feet in height, is lowered mouth downwards into water till the level of the water inside is 34 feet below the surface. What is the height of the part of the cone now occupied by air, the height of the water barometer being 34 feet?

9. Describe the common hydrometer, and show how it is graduated.

10. A uniform rod is suspended by two vertical strings attached to its extremities, and half of it, from one extremity, is immersed in water. If its specific gravity be s , find the ratio between the tensions of the strings.

GROUP B.

11. Define 'right ascension,' 'declination,' 'altitude,' 'azimuth,' and 'hour angle.' State how they are measured on the celestial sphere.

Prove that the altitude of the celestial pole at any place is equal to the latitude of the place.

12. Describe the transit circle, and 'show how to find the zenith point.

13. What is meant by 'coefficient' of atmospheric refraction?

Give Bradley's method of determining it.

14. How is the annual apparent path of the Sun, as observed from the Earth, traced on the celestial sphere?

From what observations is it established that the apparent path of the Sun round the Earth is not circular?

15. Explain graphically what, in the case of a planet, is meant by 'superior conjunction,' 'inferior conjunction,' 'opposition,' 'nodes,' and 'elongation.'

What are the limits respectively for the elongation of a superior and an inferior planet?

What are the conditions for the transit of an inferior planet across the Sun's disc?

16. State Kepler's Third Law, and deduce it from the law of gravitation.

17. What is meant by the 'geocentric parallax' of a heavenly body ?
 Given that the Sun's horizontal parallax is $8\cdot8''$, find the Sun's distance from the Earth, the radius of which is 3,960 miles approximately.
18. Give Flamsteed's method of finding the right ascension of a star, and explain its advantages.
19. Define the Moon's 'synodic' and 'sidereal' periods, and find the 'sidereal period,' given that the synodic period consists of $29\frac{1}{2}$ days.
20. Given the sidereal time at any instant at Greenwich, establish the formula giving the mean time at that instant.
- What do you understand by 'mean Sun' ?

PHYSICS.

Paper-setters—
(Pass and Honours).

{	DR. P. J. BRUHL, D.Sc., I.S.O., F.C.S.
	C. V. RAMAN, Esq., M.A.
	DR. D. N. MALLIK, B.A., Sc.D.
	RAI B. N. DAS BAHADUR, M.A., B.Sc.
	BABU TULSIDAS KAR, M.A.
{	D. B. MEEK, Esq., M.A., B.Sc.

FIRST HONOURS PAPER.

Examiner—JNANCHANDRA GHOSH, Esq., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Attempt not more than SIX questions, of which at least THREE should be from Group A.

The questions carry equal marks.

GROUP A.

1. Describe Poynting's determination of the mean density of the Earth by the aid of the common balance, giving sketches of the apparatus, and the theory.
2. A steel wire 231.1 cm. in length and 0.217 mm. diameter hangs vertically under a load of 2,245 grammes attached to one end. This load when disturbed in a vertical direction is found to execute 6.20 vibrations per second. Calculate Young's modulus for the wire.
3. Mention the principal methods that have been used for a determination of the surface-tension of water, and describe *one* of them fully, giving the theory and the practical details necessary for accuracy.
4. Two solid spheres of brass impinge directly on each other. State what is known experimentally as regards the phenomena resulting from such impact. Does any loss of energy occur ? If so, what is it due to ?
5. State the experimental laws of solid friction, and explain why it is possible to excite the vibrations of a tuning-fork or of a Chladni's plate by the friction of a bow.

GROUP B.

6. You are supplied with two forks, the frequency of one of which may be varied by sliding weights fixed on its prongs. Describe how you would proceed to adjust the ratio of their frequencies to be equal to a specified fraction, say 2 : 3, with the greatest possible accuracy.

7. What are the characteristics of a sustained musical note? Illustrate your answer by explaining how such a note may be produced by a stringed instrument.

8. Describe and explain the interference phenomena observed round the prongs of a tuning-fork.

9. Explain why sound-waves suffer reflection when they arrive at a surface at which the density of the medium alters. Does any change of phase occur?

10. Assuming that the pressure-changes in air are given by Boyle's law $pv = \text{constant}$, the velocity of sound may be calculated, but is found to disagree with the observed value. Explain this, and show how the correct velocity may be calculated theoretically.

PHYSICS.

SECOND HONOURS PAPER.

Examiner—D. B. MEEK, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Answer Questions 1 and 2 and any other FOUR.

The figures in the margin indicate full marks.

1. Explain what is meant by steam line, ice line, and hoar-frost line. Show that these lines are concurrent. Draw the lines for a substance that contracts when it solidifies. 16

2. A glass globe contains unsaturated moist air, and the pressure is so adjusted that on opening a stop-cock communicating with the external air a very slight cloudiness is produced. Show that, if the initial and final pressures of the air and its hygrometric state are known, the ratio of the specific heats for the moist air can be calculated. 16

3. Obtain Van der Waal's equation as a corrected form of $pv = R\theta$. 17

Find the critical temperature, critical volume, and critical pressure in terms of the constants of the equation.

4. State the First Law of Thermodynamics, and write a note on the experimental determination of the mechanical equivalent of heat. 17

5. Write a note on the liquefaction of gases, giving both the theory and the details of the apparatus employed. 17

6. Describe the working of Carnot's reversible heat engine. 17

Define the efficiency of an engine, and prove that all reversible engines taking in equal quantities of heat and working between the same temperatures are equally efficient.

7. Explain Lord Kelvin's absolute scale of temperature, and show that temperatures measured on this scale will agree with the values of temperatures given by the perfect gas thermometer. 17

8. Write a note on the internal-combustion engine, giving as many details of construction as possible. 17

PHYSICS.

THIRD HONOURS PAPER.

Examiner—P. MAHALANOBIS, ESQ., B.SC., B.A.

Candidates are required to give their answers in their own words as far as practicable.

Answer FIVE questions, of which TWO at least must be from either Group A or Group B.

The questions carry 20 marks each.

GROUP A.

1. Investigate the path of a ray refracted through a prism, the ray making an angle with the principal section of the prism.

2. Show that in the case of a number of lenses in contact the algebraical sum of the reciprocals of their respective focal lengths is equal to the reciprocal of the focal length of the equivalent lens.

3. Investigate the case of achromatic combinations of lenses in contact. A compound achromatic lens is to be manufactured having a focal length of 50 cm., the surfaces of contact of the crown and flint-glass lenses having a common radius of 30 cm. The dispersive powers of crown and flint glass being taken as 0.22 and 0.46, and the refractive indices for the middle of the spectrum assumed as 1.52 and 1.63 respectively, calculate the radii of curvature of the second faces of the two lenses.

4. Give details regarding the instrumental outfit required to investigate the ultra-red portion of the spectrum of the light emitted by an arc lamp.

5. What are the 'cardinal points' of a thick lens? What problems can be solved by making use of the properties of nodal points? How can the position of the nodal points of a given thick lens be determined experimentally?

6. Investigate the achromatism of Huyghens's eye-piece. Why is this eye-piece used in microscopes and not in telescopes?

GROUP B.

7. Characterize the different methods of producing interference fringes.

8. Investigate the case of diffraction at a straight edge.

9. Give an account of Sellmeier's theory of dispersion, and obtain Sellmeier's dispersion formula and apply it to the case of infinitely short waves and infinitely long waves.

10. Find an expression for the resolving power of a grating.

11. Explain the colour phenomena observed when thin plane-parallel plates of quartz of various thicknesses cut parallel to the crystallographic chief axis are viewed between crossed nicols.

PHYSICS.

FOURTH HONOURS PAPER.

Examiner—DR. D. N. MALLIK, B.A., SC.D.

Candidates are required to give their answers in their own words as far as practicable.

Not more than SIX questions to be attempted.

The questions are of equal numerical value.

1. Define 'Electric Field.' How would you represent the characteristic properties of (a) a uniform, (b) a variable field? An insulated and hollow conducting sphere is introduced into a uniform field. Draw a careful diagram of the resulting field.

Deduce from your diagram the measure of the charge on the sphere and the potential inside the sphere.

2. Explain the theory of the attracted disc electrometer, carefully explaining, by means of a diagram or otherwise, the action of the guard plate.

How does the energy change, if the distance between the attracting systems in this electrometer is changed?

3. Define 'potential.' In what connexions is the word used? Clearly explain its physical meaning in these cases.

Find the potential of a small bar magnet, and deduce its action on a magnetic pole placed at any point.

4. Define unit current in absolute measure, and explain on what fundamental definitions the 'ohm' is based.

Describe how a standard resistance may be constructed.

5. Explain on the principle of energy the phenomenon of electromagnetic induction. Show from general considerations that the coefficient of self-induction is of the dimensions of a resistance.

Describe an experiment by which the phenomenon of self-induction may be made manifest.

6. Describe, as completely as you can, the phenomena (reversible and irreversible) occurring in a primary cell.

How would you modify Ohm's law in order to take account of these?

7. Define thermo-electric power. If the thermo-electric power of any two metals is of the form $a + bt$, where t is the temperature, find the E.M.F. of a couple made up of those two metals, between given temperatures. Is there any relation between a and b ? What will be the corresponding Peltier effect?

8. Investigate the effect of a circular current on a magnetic pole, placed at a given distance from its centre.

A vertical coil of twenty turns and of 2 centimetres radius is placed at an inclination of 30° to the plane of the magnetic meridian. If a current of one ampère passes through the coil, find the force which it exerts on a unit pole placed at a distance of 20 centimetres from its centre. Also find the inclination to the magnetic meridian of a small magnet suspended

at the same distance, due to the joint action of the coil and the earth's magnetism.

$$(H=0.18.)$$

9. Describe a frictional machine and a Ruhmkorff's coil, and compare their actions.

Compare a few typical experiments that can be performed with the two apparatus.

PHYSICS.

FIRST PASS PAPER.

Examiners—{ BABU SURENDRANATH GHOSH, M.A.
BABU PURNACHANDRA KUNDU, M.A.

Answer Question 4, another question of group B, and two questions from each of the groups A and C.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks

GROUP A.

1. Define the terms wave-length, amplitude, and frequency. 16
Assuming that the velocity of a water-wave of wave-length λ is given

by the formula $v^2 = \frac{g\lambda}{2\pi}$, calculate the velocity and frequency of a

wave when the distance from one crest to the next is observed to be 55 ft. What are stationary waves, and what is the difference between them and ordinary waves? Illustrate your answer with neat pencil sketches on squared paper. Define the terms nodes and loops, and explain how they are formed.

2. Define the term 'Intensity' of an electric field, and prove that 16
near to the surface of a hollow conductor it is equal to 4π times the surface density of the charge; also define *electrostatic pressure*, and prove that it is equal to $\frac{F^2}{8\pi}$ where F denotes the intensity of the field

just outside a hollow charged conductor

3. Give a general definition of the term Elasticity, and prove that, 16
in the case of a gas, the elasticity at constant temperature is numerically equal to the pressure. Calculate in C.G.S. units the value of Young's modulus, in the case of a wire, from the following data:—

Mean extension for 6 kgm.	=0.537 mm.
Radius of wire	=0.675 mm.
Length of wire	=250 cm.

GROUP B.

4. Describe some form of constant volume air-thermometer. Give 20
in detail the mode of using it and working out the observations made

so as to get the most accurate result. Are the coefficients of increase of pressure of different gases identical with their respective coefficients of expansion under constant pressure, and is any of these coefficients the same for all gases? What general conclusions have been drawn from a comparison of these coefficients?

5. Define relative humidity, and describe a method of determining it. 16

A cubic metre of air at 20° is found to contain 11.56 grammes of aqueous vapour. What is the relative humidity of this air, the maximum pressure of aqueous vapour at 20° being 17.39 mm.?

6. Define the term mechanical equivalent of heat, and briefly describe a method of determining it. Give its value in foot-pounds and in C.G.S. units. 16

A cannon ball, the mass of which is 100 kilograms, is projected with a velocity of 500 metres per second. Find in C.G.S. units the amount of heat which would be produced if the ball were suddenly stopped.

GROUP C.

7. Deduce the condition for minimum deviation of a ray of light passing through a prism, and describe fully how the index of refraction of the material of a prism can be determined. 16

8. Describe the compound microscope. Trace the path of rays through such an instrument. Obtain an expression for its magnifying power. 16

9. Describe simple experiments to illustrate the phenomena of double refraction and polarization. How would you show that light becomes polarized by double refraction? Explain how experiments on polarization lead to the conclusion that the light vibrations are transverse. 16

PHYSICS.

SECOND PASS PAPER.

Examiners— $\left\{ \begin{array}{l} \text{RAI KUMUDINIKANTA BANERJEE, BAHADUR,} \\ \text{M.A.} \\ \text{BABU RAMENDRANATH GHOSH, M.A.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal numerical value.

Only SIX questions to be attempted.

1. Obtain an expression for the velocity of sound in air, in terms of the pressure and the density.

Calculate the velocity of sound in air at 30° C., when the barometric height (corrected) is 755 mm.

$$\alpha = 0.00367 \qquad \gamma = 1.4.$$

2. Distinguish clearly between stationary waves and progressive waves.

Explain, graphically or mathematically, the formation of nodes and antinodes, when two trains of exactly similar waves travel along the same line from opposite directions.

3. Explain Doppler's principle, and describe how it can be easily demonstrated.

Two trains are approaching from opposite directions with the same speed of 100 ft./sec. The whistle of the first train is of frequency 1024. Find the variation of the apparent pitch calculated by an observer in the second train as the trains pass, supposing there is no wind and that the velocity of sound in air is 1100 ft./sec.

4. Describe the deflexion method of comparing the magnetic moments of two magnets by the magnetometer, explaining the adjustments in detail.

5. Explain how to find the dip with the dip circle. What are the possible sources of error, and how are they avoided?

6. Define 'line of force' and 'unit tube of force.' What are the physical properties attributed to the tubes of force? Show, in some simple cases, that these properties are sufficient to explain the phenomena of electric attraction and repulsion. Explain clearly how from the distribution of these tubes the intensities at different parts of the field may be compared.

7. Prove that the potential due to a uniformly charged sphere at any external point is the same as if the whole charge were collected at the centre.

A sphere of radius 3 cms., and charged to a potential of 9 C.G.S. units, is placed with its centre A at a distance of 118 cms. from the centre B of another sphere of radius 4 cms. and charged to a potential of 8 C.G.S. units. Find the potential at O in AB, such that OA is 54 cms.

8. Explain the theory and the method of measuring resistances by the metre bridge. What are the chief sources of error, and how are these errors eliminated?

9. Explain the theory and the method of measuring the E.M.F. of a cell by the potentiometer. Indicate how the instrument can be used for current and resistance measurements.

10. Prove the relation between electric energy and calorie.

A current of 2 amperes is sent for ten minutes through a coil of resistance 10 ohms, immersed in 500 grammes of water in a calorimeter of water equivalent 10 grammes. The rise of temperature of the water, after correcting for radiation, is 11.8°C . Calculate the value of J.

11. State Lenz's law on the direction of induced currents, and show that it follows from the principle of the conservation of energy.

Why are the oscillations of the coil of a D'Arsonval galvanometer damped by short-circuiting it? Is there any damping effect on short-circuiting a needle galvanometer? What method of damping is chiefly used in aperiodic needle galvanometers?

PRACTICAL PHYSICS.

In Calcutta, no candidate shall be examined in the College in which he has worked. Each centre is complete in itself, and the candidates at each centre shall be examined only by examiners appointed for that centre.

HONOURS.

DR. D. N. MALLIK, B.A., Sc.D., F.R.S.E.,—
Convener.

RAI KUMUDINIKANTA BANERJEE, BAHADUR,
M.A.

P. MAHALANOBIS, Esq., B.Sc., B.A.

D. B. MEEK, Esq., B.Sc.

PASS.

DR. D. N. MALLIK, B.A., Sc.D., F.R.S.E.,—
Convener.

PRESIDENCY COLLEGE CENTRE.

BABU HRIDAYCHANDRA BANERJEE, M.A.

BABU PURNACHANDRA BHATTACHARYYA, M.A.

SCOTTISH CHURCHES COLLEGE CENTRE.

BABU NIBARANCHANDRA RAY, M.A.

BABU DWIJENDRAKUMAR MAJUMDAR, M.A.

ST. XAVIER'S COLLEGE CENTRE.

REV. FATHER BRIOT, S.J.

BABU TULSIDAS KAR, M.A.

DACCA COLLEGE CENTRE.

W. A. JENKINS, Esq., M.Sc.

BABU TARAKADA MUKHERJEE, M.A.

GAUHATI COLLEGE CENTRE.

D. E. ROBERTS, Esq., M.Sc.

BABU KAMADACHARAN CHAKRABARTI, M.A.

RAJSHAHI COLLEGE CENTRE.

BABU BAMACHARAN BHATTACHARYYA, M.A.

SURENDRANATH MAITRA, Esq., M.A., A.R.C.S.

RANGOON COLLEGE CENTRE.

K. M. WARD, Esq., B.A.

N. C. K. AIYER, Esq., M.A.

BERHAMPORE COLLEGE CENTRE.

MR. ADINATH SEN, M.A., B.Sc.

BABU NRIPENDRANATH DE, M.A., B.Sc.

Examiners—

HONOURS PAPER.

1. Find how the surface tension of the given liquid will vary with concentration.
 2. Find the moment of inertia of the given body.
 3. Find g by Kater's pendulum.
 4. Find the vapour density of the given liquid by Victor Meyer's method.
 5. Find the densities of water at different temperatures by a weighted bulb. Draw the graph and calculate the average coefficient of expansion of water.
 6. Find the change in the specific heat of water by the addition of known proportions of salt.
 7. Find the change in the specific heat of the given liquid with temperature by Joule's calorimeter.
 8. Two tuning forks are given: Determine the frequency of one of them directly and then deduce that of the other by finding the number of beats produced.
 9. Find by the spectrometer the variation of the angle of deviation of a ray through a prism with the angle of incidence. Represent the result graphically and calculate the refractive index of the material of the prism.
 10. Find the number of lines per unit length of the given grating with a known wave-length.
 11. Calibrate the given spectroscope for wave-length measurements, using the given salts or the given vacuum tube. (*Salts*—sodium, potassium, lithium, and calcium. Vacuum tube—Hydrogen or Helium).
 12. Find the variation in the refractive index of salt solution of different concentrations by the hollow prism method.
 13. Find " H " by the reflecting magnetometer.
 14. Calibrate the wire of the given metre-bridge by Carey-Foster's method.
 15. Find the temperature coefficient of resistance of the given wire with the metre-bridge, taking all possible precautions.
 16. Find the temperature coefficient of the given wire by a potentiometer method.
 17. Find the variation of resistance with concentration of the solution of the given salt by Kohlrausch's method. Plot the result graphically.
 18. Find the value of J by an electric Calorimeter, measuring the current by a copper voltameter and making corrections for radiation.
 19. Determine the variation of E.M.F. of an iron-copper couple with temperature, between 0°C and 100°C . Plot a curve and hence determine the coefficient of increase of E.M.F. for the same range.
 20. Construct one one-ohm coil and compare it with a standard one-ohm coil by Carey-Foster's method.
 21. Given a nominal one-ohm coil, whose value is higher than the marked value. Construct a shunt which will bring it to the standard value.
 22. Trace the equipotential lines on the given tin foil of circular section with electrodes at two points on the circumference.
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PRACTICAL PHYSICS.

PASS PAPER.

The Examinations last for six hours (11 A.M. to 5 P.M.).

Two questions, the total value of which is 80, are to be given out by lottery.

1. Find the average cross section of the given wire by the hydrostatic balance, making corrections for the temperature of water. Check the result by the screw gauge.
2. Determine the periods for different lengths of a simple pendulum. Draw the L-T graph and find, from the graph, the length of the seconds-pendulum.
3. Find accurately Young's Modulus for the given wire.
4. Find the density of the given liquid by the hydrostatic balance method, making corrections for the temperature of water.
5. Find, by the hydrostatic balance, the specific gravity of the given solid, soluble in water, making corrections for the temperature of water.
6. Find accurately the volume per gram of the given powder.
7. Find the volume of the air cavity of the given hollow solid, which sinks in water. (A sample of the substance must be given).
8. Determine by the resonance column method, the velocity of sound in moist air at the temperature of the room, eliminating the end effect. Hence find the frequency of the given fork.
9. Draw a graph giving the relation between the frequency and length of vibrating string (under given tension). Hence deduce the frequency of the given fork.
10. Determine by the sonometer the frequency of the given tuning fork.
11. Measure, with travelling microscopes, the mean co-efficient of expansion of the given rod or tube, between the room temperature and that of boiling water.
12. Establish the relation between the pressure and temperature of a mass of air at constant volume. Draw the graph and calculate the pressure co-efficient.
13. Establish the relation between the volume and temperature of a mass of air at constant pressure. Draw the graph and calculate the coefficient of expansion.
14. Find the specific heat of the given solid (glass or marble) by the method of mixtures, making corrections for radiation.
15. Find, by the method of mixtures, the specific heat of the given liquid (mustard oil), using copper as a substance of known specific heat, making corrections for radiation.
16. Find, by the method of mixtures, the latent heat of fusion of ice correcting for radiation.
17. Measuring the focal length and the curvatures of the two surfaces of the given double convex lens, calculate the refractive index of its material.
18. Given a pin, a telescope and scale and a spherometer, find the index of refraction of the material of the lens.
19. Find by two different methods the focal length of the given convex lens.
20. Draw the u/v curve for the given lens and from the graph find its focal length.
21. Find the focal length of the given concave lens, using an auxiliary convex lens.
22. Determine the magnifying power of the given telescope for infinity.

23. Determine the refractive index of the given liquid by the microscope. (Different thicknesses of the liquid to be taken and the experiment repeated).

24. Determine, by the spectrometer, the refractive index for sodium light of the material of the given prism.

25. Compare the magnetic moments of the two given magnets by the deflection method.

26. Find, with a copper voltameter, the reduction factor of the given tangent galvanometer.

27. Verify, with a P.O. Box, the relation,

$$\frac{1}{R} = \frac{1}{r_1} + \frac{1}{r_2}.$$

28. Find, by the metre bridge, the specific resistance of the material of the given wire.

29. Compare the E.M.F's of the two given cells by the potentiometer.

CHEMISTRY.

	$\left\{ \begin{array}{l} \text{RAI CHUNILAL BASU, BAHADUR, M.B.,} \\ \text{I.S.O., F.C.S.} \\ \text{JATINDRANATH SEN, ESQ., M.A.} \\ \text{R. N. SEN, ESQ., M.A.} \\ \text{BABU CHANDRABHUSHAN BHADÚRI, B.A.} \\ \text{SIR P. C. RAY, KT., C.I.E., D.Sc., PH.D.} \\ \text{BABU RAMENDRASUNDAR TRIVEDI, M.A.} \end{array} \right.$
<i>Paper-setters—</i>	
<i>(Pass and Honours).</i>	

FIRST HONOURS PAPER.

*Examiner—*SIR P. C. RAY, KT., C.I.E., D.Sc., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

Attempt no more than FIVE questions.

The questions are of equal numerical value.

1. Give an account of the different theories of fermentation, and describe two industrial processes which are based on fermentation.

2. How is aceto-acetic ester prepared, and what is its constitution? Describe its various uses in organic synthesis.

3. How are the following substances prepared :—(a) nitromethane, (b) mercury fulminate, (c) ethylmercaptan, (d) allyl alcohol, (e) malachite green, (f) methyl orange, (g) amino-acetic acid, and (h) phenyl-hydrazin?

4. Write down the constitutional formulae of the different amyl alcohols, and indicate which of these you would expect to be optically active.

Describe the methods which are usually applied for resolving an externally compensated compound into its optically active constituents.

5. An organic base (*monacid*) gave on analysis the following result:—

0.1436 grm. gave 0.3633 grm. CO_2
and 0.1931 grm. H_2O ;

0.1254 grm. gave 18.1 c.c. N
at 27°C . and 750 mm.

Determine the molecular formula of the substance if its platinum-chloride contains 33.4 per cent. of platinum. ($\text{Pt}=195$.)

6. Write a short note on the diazo-reaction. Starting with aniline, show how you would prepare—(a) phenyl-iodide, (b) phenyl-cyanide, (c) phenol, (d) diazo-amido-benzene, and (e) amino-azo-benzene.

7. Give an account of the contributions to organic chemistry by Berzelius, Liebig and Wöhler.

CHEMISTRY.

SECOND HONOURS PAPER.

Examiner—DR. P. C. MITTER, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

Answer Question 8; THREE questions from Group A and TWO from Group B.

The figures in the margin indicate full marks.

GROUP A.

1. What are the sources from which iodine is now manufactured ? 16
Describe one of the methods of its extraction generally adopted at the present time. How would you prepare a strong aqueous solution of hydriodic acid ? Sketch the plant you would employ. What are the uses of this substance ?

2. How would you account for the presence of free sulphur in nature ? How is sulphur extracted from its ores ? How is sulphur dioxide manufactured at the present time for uses other than that of sulphuric acid manufacture ? Sketch the plant you would employ. What are the principal uses of this substance ?

3. Give a historical outline of the experiments that led to the discovery of the rarer gases of the atmosphere. How are they now obtained in a pure condition, and how can they be distinguished from one another ? Give reasons for classifying them together as belonging to the zero group in the periodic table of elements. 16

4. Name the principal sources from which phosphorus is obtained. 16
Describe the most recent method of its manufacture. Discuss the constitution of the oxyacids of phosphorus.

GROUP B.

5. Describe some of the experiments that led to the discovery of the alkali metals, including the rare ones. Compare the alkali metals, and explain how they are distinguished from one another. How is sodium manufactured ? Sketch the plant used. 16

6. Name the principal ores of lead. Describe a method of its extraction from these. Explain the principle on which desilverization of lead is based, and how it is actually effected. How are oxides of this metal made, and what are their uses in the arts and manufacture? 16

7. Name the cobaltimines and write their constitutional formulae. Discuss the constitution of these compounds, and indicate the theories put forth by various workers of late to account for it. 16

GROUP C.

8. How are the following substances manufactured, and what are the uses they are put to in arts and manufacture:—(a) ultramarine, (b) Prussian blue, (c) vermilion, (d) alum? 20

CHEMISTRY.

THIRD HONOURS PAPER.

Examiner—DR. BRAJENDRANATH GHOSH, D.Sc.

Candidates are required to give their answers in their own words as far as practicable.

Only FIVE questions are to be attempted.

The same value is attached to each question.

1. State the laws of atomic heat and molecular heat. Explain how they help in the determination of atomic weights. Discuss the anomalous behaviour of silicon and carbon with regard to atomic heat.

2. What are compound radicals? Give examples. Discuss the bearing of the doctrine of ionization and of valency on the theory of compound radicals.

3. Describe the effects of the gradual rise of temperature on the physical and chemical properties of nitrogen peroxide. Explain how the degree of its dissociation can be determined at any given temperature.

4. You are required to determine the molecular weight of ether vapour. Describe the procedure you would employ, explaining the theory of the method.

5. State the laws of freezing-points of solutions. Discuss their theoretical significance, pointing out their relations to the laws of osmotic pressure.

6. State the laws of electrolysis. Describe three typical cases of the employment of electrolytic methods for the extraction of metals.

7. What are irreversible actions in chemistry? Give typical examples. Explain, with the help of examples, the conditions of chemical equilibrium between two reacting substances in solution.

8. Write short notes on the following:—

- (a) Endothermic and exothermic actions;
- (b) Homology;
- (c) Physical isomerism;
- (d) Fermentation.

CHEMISTRY.

FOURTH HONOURS PAPER.

Examiner—DR. PANCHANAN NIYOGI, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

Not more than FIVE questions to be attempted.

The questions are of equal numerical value.

1. Explain clearly, with equations, the methods for (a) the removal of phosphoric acid in the ordinary course of analysis, (b) the separation of Al and Fe, (c) the separation of Co and Ni, (d) the separation of Ca and Mg, and (e) the separation of Zn and Cu.

2. Mention the chief oxidizing agents and reducing agents with which you are familiar, and for each write out *one* equation to indicate a purpose for which it may be used, selecting examples from organic as well as inorganic compounds.

3. Describe the preparation and discuss the constitution of (a) bleaching powder, and (b) tartaric acids.

4. What is meant by the following terms:—(a) heat of formation, (b) heat of combustion, (c) heat of solution, and (d) heat of neutralization?

From the following data calculate the heat of formation of acetylene:—

Heat of combustion of acetylene = 315,700 calories,

$C + O_2 = CO_2 + 94,400$ calories,

$H_2 + O = H_2O + 68,400$ calories.

5. Describe the manufacture of *any three* of the following: soda, ash, chlorine, sugar, and soap.

6. Write what you know about the utilization of the following for industrial purposes:—coal-tar, seaweed, and nitrogen of the atmosphere.

7. What are the probable impurities which may occur in natural water, and how would you detect them? Explain clearly what is meant by 'hard' water, and also the methods used in softening it. Describe *one* method of estimating the hardness of water.

CHEMISTRY.

FIRST PASS PAPER.

Examiners— { RAI B. N. DASS BAHADUR, M.A.
 { BABU KALIDAS MALLIK, M.A.

Candidates are required to give their answers in their own words as far as practicable.

Only FIVE questions to be attempted.

The figures in the margin indicate full marks.

1. An organic compound was found on examination to contain, 20
 besides oxygen, the following constituents:—

Carbon	..	..	..	33.78 per cent.
Hydrogen	..	..	..	4.72 „
Nitrogen	..	..	..	13.17 „
Chlorine	..	..	..	33.34 „

What is the simplest possible molecular formula of the above ?

How would you determine carbon and hydrogen in the above substance ?

2. Describe the uses of the following apparatus and give diagrammatic sketches of the same:—fractionating column, separating funnel, reflux condenser, potash bulbs, and Schiff's azotometer. 20

3. Explain the following terms, giving examples wherever possible:—aromatic compounds, aldol condensation, compound radicals, oxygen carrier, and structural formula. 20

4. Describe the preparation and properties of the hydrocarbon or hydrocarbons containing one atom of carbon in the molecule. Compare the properties of the above with other hydrocarbons you are acquainted with. 20

Write a short note on Kekulé's benzene theory.

5. How would you most conveniently prepare ethyl chloride ? 20
 Would you prefer to use the same process in the case of the preparation of ethyl bromide ? If not, what process would you adopt ?

Give a short account of the various synthetic processes in which halogen derivatives of hydrocarbons are used.

6. How would you test for the following:—acetone, aniline, cyanides, phenol, and urea ? 20

7. Describe the preparation of the following substances:— 20

- (a) ethylene glycol,
- (b) acetamide,
- (c) ethyl ether,
- (d) acetic anhydride.

How would you get formic acid from oxalic acid, and vice versa ?

CHEMISTRY.

SECOND PASS PAPER.

Examiners— { RAJ BAHADUR DR. CHUNILAL BASU, M.B.
 { BABU CHUNILAL DE, M.A.

*Candidates are required to give their answers in their own words
 as far as practicable.*

Only FIVE questions to be attempted.

The questions are of equal numerical value.

1. Explain the essential conditions for the liquefaction of a gas. Describe Faraday's experiment in this connexion, and note how it was improved by Pictet.

Chlorine is said to be a 'more easily liquefied' gas than oxygen. Discuss the correctness of the statement.

2. Define 'atomic weight,' and give a brief outline of the various methods used for its determination.

3. How would you prepare the gaseous hydrogen compounds of phosphorus and arsenic? Note and explain the precautions you will take in each case.

4. State the composition, preparation, properties and uses of the following substances:—(a) Minium, (b) microcosmic salt, (c) lunar caustic, (d) water-gas, (e) sodium amalgam.

5. State the distribution of silicon in nature. How would you obtain it in (a) amorphous and (b) crystalline conditions? Compare the properties of the two forms of silicon.

Explain the terms 'colloids' and 'crystalloids.' How would you separate the one from the other in a mixture?

6. You are given a white powder suspected to be a mixture of lead carbonate and calcium phosphate. Give details of the method you would employ to identify the basic radicals in the mixture.

7. Mention the principal ore of antimony, and state how the metal may be obtained from it. How does antimony differ from most other metals in general characters?

How would you prepare the oxides and the chlorides of the metal, and how are they to be distinguished from the corresponding compounds of bismuth?

PRACTICAL CHEMISTRY.

Pass and Honours.

In Calcutta, no candidate shall be examined in the College in which he has worked. Each centre is complete in itself, and the candidates at each centre shall be examined only by examiners appointed for that centre.

HONOURS.

CIVIL ENGINEERING COLLEGE, SIBPUR.

SIR P. C. RAY, C.I.E., D.Sc., Ph.D.—
Convener.

R. N. SEN, Esq., M.A.

DR. RASIKLAL DATTA, D.Sc.

BABU JATINDRANATH SEN, M.A.

PASS.

SIR P. C. RAY, C.I.E., D.Sc., Ph.D.—
Convener.

PRESIDENCY COLLEGE CENTRE.

DR. BIMANBIHARI DE, D.Sc.

GOPIMOHAN SEN, Esq., B.A.

SCOTTISH CHURCHES COLLEGE CENTRE.

B. C. DUTT, Esq.

BABU BIDHUBHUSHAN DUTT.

Examiners—

ST. XAVIER'S COLLEGE CENTRE.

REV. FATHER VAN NESTE, S.J.

DR. ANUKULCHANDRA SARKAR, M.A., Ph.D.

DACCA COLLEGE CENTRE.

RAI B. N. DAS, BAHADUR, M.A., B.Sc.

BABU KIRANCHANDRA MITRA, M.A.

GAUHATI COLLEGE CENTRE.

DR. BRAJENDRANATH GHOSH, M.Sc. (Cal.),
D.Sc. (Lond.).

DR. P. C. MITTER, M.A., Ph.D.

RAJSHAHI COLLEGE CENTRE.

BABU PANCHANAN NIYOGI, M.A.

BABU HARIDAS SAHA, M.A.

BERHAMPORE COLLEGE CENTRE.

MR. K. G. NAIK, M.A., B.Sc.

DR. SUDHAMAY GHOSH, D.Sc. (Edin.).

RANGOON COLLEGE CENTRE.

A. E. BELLARS, Esq., M.A.

DR. HEMENDRANATH SENGUPTA, D.Sc.

PRACTICAL CHEMISTRY.

PASS PAPER.

FIRST DAY.

Note the number of each bottle in your answer-book.

The figures in the margin indicate full marks.

1. Make a complete qualitative analysis of the substance (A) 35
which may not contain more than two radicles, acidic or basic.
2. Identify the Organic substance in solution (B). 25
3. Estimate volumetrically the *total* amount of chlorine in the 40
given solution of Barium Chloride (C). You are given a standard
acid and a solution of sodium carbonate.

PRACTICAL CHEMISTRY.

SECOND DAY.

Note the number of each bottle in your answer-book.

The figures in the margin indicate full marks.

1. Make a complete qualitative analysis of the substance (A) 35
which may not contain more than two radicles, acidic or basic.
2. Identify the Organic substance in solution (B). 25
3. Estimate volumetrically the *total* amount of Barium in the
given solution of Barium Chloride (C). You are given a standard
acid and a solution of sodium carbonate.

BOTANY.

Paper-setters— S. C. MAHALANOBIS, ESQ., B.Sc., F.R.S.E.
(*Pass and* C. C. CALDER, ESQ., B.Sc.
Honours) DR. P. J. BRUHL, D.Sc., I.S.O., F.C.S., F.G.S.

FIRST HONOUR PAPER.

*Examiner—*C. C. CALDER, ESQ., B.Sc.

*Candidates are required to give their answers in their own words
as far as practicable.*

Answer any FIVE questions.

The questions carry equal marks.

1. Discuss the value of hypogyny, perigyny, and epigyny in the
classification of plants.
2. Give an account of cymose inflorescences, their types and relation-
ships.

3. Point out clearly the resemblances and differences between *Selaginella* and an Angiosperm as regards—(a) the gametophyte generation, (b) the process of fertilization, (c) the nursing of the embryo. Explain these resemblances and differences.

4. Classify the palms, and refer briefly to their uses to man.

5. Give an account of EITHER *Rubiaceae* OR *Malvaceae*, with special reference to their respective affinities.

6. Discuss the vegetation of the Calcutta district or of any district with which you are familiar.

7. Discuss the influence of man and modern communications on the distribution of plants, and mention as many plants as you can which are now found wild in India, but are not natives of India.

BOTANY.

SECOND HONOUR PAPER.

Examiner—G. C. BOSE, ESQ., M.A., M.R.A.S.

Candidates are required to give their answers in their own words as far as practicable.

The questions carry equal marks.

1. Give a concise account of the dermal system of Phanerogams.

2. Every plant in its ontogeny passes through a course of development from the simple to the complex. Exemplify this statement.

3. As we ascend the scale from the Mosses to the Phanerogams, the sexual becomes more and more dependent on the asexual generation. Prove the correctness of this statement.

Either,

4. Describe the elements of secondary growth in woody dicotyledons, and give instances of secondary growth in monocotyledons.

Or,

Write an account of the course of vascular bundles which pass from the leaves of dicotyledonous plants into the stem, and compare the structure of the bundles at different points of the course.

Either,

5. Shortly characterize the main groups of Algae.

Or,

Compare and contrast Smut-Fungi and Rust-Fungi, and give an account of the life-history of any member of either order which you have studied in detail

Or,

Describe the morphological characters of any group of cryptogams of which you have made a special study, and trace the life-history of any member of the group.

BOTANY.

THIRD HONOUR PAPER.

Examiner—S. C. MAHALANOBIS, Esq., B.Sc., F.R.S.E.

Candidates are required to give their answers in their own words as far as practicable.

Only FIVE questions to be answered.

The questions are of equal numerical value.

1. Discuss the relation between food-storage and reproduction.
2. What effect is produced on *sunlight* by its passage through chlorophyll? What part of the solar spectrum has the greatest influence on the growth of plants? Describe some experiment in evidence of your answer.
3. Describe fully the influence of vegetation on climate.
4. Describe in detail the processes of healing of wounds that obtain in plants.
5. Explain the biological significance of the reduction of chromosomes, and describe the details of the process.
6. Does the atmospheric carbon dioxide play any part in connexion with photosynthesis? Give evidence in support of your answer.
7. What is humus? Give an account of different kinds of soils, with special reference to *loams* and *marls*. What are the important characteristics of a good soil, from the point of view of the plant?

BOTANY.

FOURTH HONOUR PAPER.

Examiner—BABU SURENDRACHANDRA BANERJEE, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal numerical value.

1. Contrast the Mangrove type of vegetation with that of inner Bengal.
2. Write what you know concerning the distribution, in time and space, of the Cycads.
Either,
3. Give an account of De Vries's doctrine of Mutation.
Or,

What evidences in favour of the doctrine of evolution can be adduced from a study of the fossil floras of the Lower and Upper Gondwanas?

Either,

4. 'Periodic phenomena in plants follow marked periodicity in climate.' Examine this statement in detail.

Or,

Characterize, from an oecological point of view, the vegetation of Rain-Forests.

5. Write an account of the influence of Linnaeus's work on systematic botany.

BOTANY.

FIRST PASS PAPER.

Examiner—DR. GIRINDRANATH MUKHERJEE, B.A., M.D.

Candidates are required to give their answers in their own words as far as practicable.

Answer any FIVE questions.

The questions carry equal marks.

1. Describe the constituent parts of the bast, and indicate the purpose which they serve.

2. What is a seed? Indicate in what respects a seed (a) resembles, and (b) differs from, a spore. Illustrate your answer with special reference to the macrosporangium of *Selaginella*.

3. Describe the development of *either* the anther *or* the ovule of any phanerogamous species.

4. Compare the sexual organs of a moss with those of a fern.

5. State what you know about Lichens.

6. Give an account of the life-history of wheat rust.

7. How do you distinguish a Labiate from a Verbonacea, a Malvacea from a Sterculiaceae, a Sapindaceae from an Anacardiaceae, a Scrofulariaceae from a Bignoniaceae, and an Amaryllidaceae from a Liliaceae?

BOTANY.

SECOND PASS PAPER.

Examiner—J. C. NAG, ESQ., B.Sc.

Candidates are required to give their answers in their own words as far as practicable.

Only FIVE questions to be answered.

The questions are of equal numerical value.

1. Give an account of the anatomy of the ovule, and describe the histological changes that take place after the fertilization of the ovum.

2. Describe the processes by which plants affect the condition of the atmosphere in which they live.

3. Describe the structure of the laticiferous tissue, and give an account of its principal contents.

4. How would you experimentally prove whether a growth-curvature is produced in response to light or to gravity?

5. Give an account of the various forms of the folding of (a) foliage, and (b) floral leaves in the bud.

6. Describe the influence of parasitism on the host and the parasite respectively.

7. Describe the Indigo plant, and the mode of its cultivation. What natural order does it belong to? From what part of the plant, and how, is the dye obtained?

PHYSIOLOGY.

Paper-setters— { HON. SIR NILRATAN SARKAR, KT., M.A., M.D.
(*Pass and* { RAI BAHADUR DR. UPENDRANATH BRAHMA-
Honours) { CHARI, M.A., M.D., PH.D.
MAJOR D. McCAY, M.B., I.M.S.

FIRST HONOUR PAPER.

*Examiner—*MAJOR D. McCAY, M.B., I.M.S.

Candidates are required to give their answers in their own words as far as practicable.

Not more than THREE questions to be attempted.

The questions are of equal numerical value.

1. Discuss critically the view that we possess three sets of terminal organs and three sets of fibres; one for pressure, one for heat, and a third for cold.

2. Discuss the condition of the apparent absence of fatigue in nerve.

3. Show by diagrams the paths of connexion between the left eye and parts of the brain associated with vision.

4. How is the pressure in the left ventricle related to the pressure in the aorta at different periods of the cardiac cycle? How has the relationship been determined?

PHYSIOLOGY.

SECOND HONOUR PAPER.

*Examiner—*S. C. MAHALANOBIS, ESQ., B.Sc., F.R.S.E.

Candidates are required to give their answers in their own words as far as practicable.

Not more than THREE questions to be attempted.

The questions are of equal numerical value.

1. Discuss the various theories that have been advanced to explain the facts of visual contrast and after-images.

2. Discuss the mechanism of haemolysis of red blood corpuscles by means of distilled water, as contrasted with that caused by specific haemolysins.

3. Discuss the origin and significance of the purin bodies.

4. Write a short essay on the properties of Colloids.

PHYSIOLOGY.

THIRD HONOUR PAPER.

Examiner—THE HON. SIR NILRATAN SARKAR, KT.; M.A., M.D.

Candidates are required to give their answers in their own words as far as practicable.

Not more than THREE questions to be attempted.

The questions are of equal numerical value.

1. Describe the structure of the retina. How does the macula lutea and the blind spot differ from the rest of the retina?

2. Write a note on what you know regarding tryptophan. How has it been isolated from proteins?

3. Write a short essay on the mechanism of chemical changes in living matter.

4. Discuss the influence on the circulation of variations in the total quantity of the blood.

PHYSIOLOGY.

FOURTH HONOUR PAPER.

Examiner—RAI BAHADUR DR. UPENDRANATH BRAHMACHARI, M.A., M.D., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

Not more than THREE questions to be attempted.

The questions are of equal numerical value.

1. Write a careful note on the functions of the Pituitary Body. What is Fröhlich's syndrome?

2. Give a short account of the parts played by vitamins and calcium salts in the physiology of metabolism and nutrition.

3. Write a note on the functions of the sympathetic and peripheral ganglia.

Does inhibition occur in peripheral ganglia?

4. What is the part played by afferent impressions in the co-ordination of muscular movements?

PHYSIOLOGY.

FIRST PASS PAPER.

Examiner—MAJOR D. McCAY, M.B., I.M.S.

Candidates are required to give their answers in their own words as far as practicable.

Not more than FOUR questions to be attempted.

The questions are of equal numerical value.

1. Discuss the food value of each of the following articles :—(a) milk, (b) fish, (c) meat, (d) rice, (e) wheaten bread, (f) ghee, (g) mustard oil, (h) eggs.
2. Give a short account of the chemical and electrical changes that occur in muscle during contraction.
3. How does the circulation in the veins differ from that in the arteries? How is the venous circulation maintained?
4. Discuss the source, the physical and chemical properties, and the functions of bile.
5. Describe the mechanism by which the respiratory movements are produced and controlled.

PHYSIOLOGY.

SECOND PASS PAPER.

Examiner—S. C. MAHALANOBIS, Esq., B.Sc., F.R.S.E.

Candidates are required to give their answers in their own words as far as practicable.

Not more than FOUR questions to be attempted.

The questions are of equal numerical value.

1. Discuss the present state of our knowledge regarding the functions of (a) the tubules of the kidney, (b) Bowman's capsule.
 2. Discuss the effects of muscular exercise on (a) the heart and circulation, (b) the exchange of material.
 3. What are the possible sources within the body of (a) urea and (b) uric acid? Give a detailed account of their formation.
 4. Illustrate graphically the position of the descending tracts of the spinal cord, and discuss the origin and destination of each tract.
 5. What is the mean arterial pressure? What is its relationship to the systolic and diastolic pressure?
-

GEOLOGY.

Paper-setters— { E. VREDENBURG, ESQ., M.A., F.G.S.
(Pass and Honours) { DR. L. L. FERMOR, D.Sc., F.G.S.

FIRST HONOUR PAPER.

*Examiner—*J. G. DE P. COTTER, ESQ.

*Candidates are required to give their answers in their own words
 as far as practicable.*

Only FIVE questions to be attempted.

The questions carry equal marks.

1. What criteria would you apply in deciphering the order of crystallization of the minerals—
 (a) in an igneous rock ;
 (b) in a mineral vein ?
2. Explain the differences in physical conditions that may cause a magma to solidify at one point in a colloidal or amorphous phase, and at another point in a crystalline phase. What factors facilitate passage from the amorphous to the crystalline phase ?
3. Draw up a scheme of classification of the hypabyssal rocks, and mention any examples of these rocks that occur in India.
4. Discuss the origin of the kodurite series.
5. Give a brief account of what is known as the metamorphis cycle, mentioning the energy changes that characterize each stage.
6. Define the following terms:—borolanite, eclogite, epicentral tract, intersertal, isostasy, mylonitic, perlitic, shonkinite, tephrite, texture.
7. Give a short account of the composition and origin of meteorites.
8. Give a short account of the petrographic composition and structural relationships of any group or area of igneous or metamorphic rocks with which you are personally familiar.

GEOLOGY.

SECOND HONOUR PAPER.

*Examiner—*BABU HEMCHANDRA DAS GUPTA, M.A., F.G.S.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The questions are of equal numerical value.

GROUP A.

Answer THREE questions.

1. Explain the formation of inliers and outliers; discuss the possibility of the occurrence of a mass of older rocks, with the structure of an outlier, occurring amongst newer rocks, mentioning any instances with which you may be acquainted.

2. Describe the formation of various kinds of breccia, and their stratigraphical appearances.

3. Describe instances in which there may be some uncertainty as to whether a volcanic rock may be intrusive sill or a contemporaneous flow, and discuss the means of arriving at the most probable interpretation.

4. Describe the stratigraphical features of a compound volcanic cone.

5. Enumerate the fresh-water formations of India, with a general account of their most important features.

6. Outline the classification of the rocks of Tertiary age in India.

GROUP B.

Answer THREE questions.

7. Describe briefly the principal groups of plant-fossils characteristic of the Palaeozoic era.

8. Give briefly the classification of the Crinoidea

9. What groups of Mammalian fossils especially characterize the various subdivisions of the Tertiary?

10. Give, in its main outlines, the geological history of the Cephalopoda.

GEOLOGY.

THIRD HONOUR PAPER.

Examiner—E. VREDENBURG, ESQ., B.Sc., F.G.S.

Answer FIVE questions only.

The questions are of equal numerical value.

1. Classify and characterize the various changes which may take place in rocks after their consolidation or deposition.

2. How would you proceed to identify the essential and accessory minerals in rocks belonging to the Syenite Family?

3. Describe the macroscopic and microscopic characters of the igneous rocks occurring in the Raniganj and Jharia coalfields

4. Give an account of the distribution in India of deposits which are chiefly made up (a) of kaoline, (b) of bauxite.

5. Classify earthquakes and define the technical terms used in detailed descriptions of earthquakes. Add notes on the rate of propagation, duration, frequency and distribution of earthquakes.

6. What theories have been propounded as to the origin of ore deposits? What ores of economical importance occur in the Indian Peninsula?

GEOLOGY.

FOURTH HONOUR PAPER.

Examiner—P. N. BASU, Esq., B.Sc.*Answer not more than FIVE questions.**The questions are of equal numerical value.*

1. Give an account of the structure and distribution in space and time of the Graptolites.
2. Characterize in general the order Ammonoidea. What are the chief distinctions between Ammonites and Nautiloids?
3. Give some details regarding the structure, affinities, and distribution in space and time of the Trilobites.
4. Write an account of the systematic position of the plant fossils found in the Lower Gondwanas.
5. How would you proceed to correlate an Indian rock series with a definite European formation?
6. Give a general account of the palaeontological character of the Cretaceous system.
7. Write a note on the dentition of the *Elephantidae*.
8. What are the principal palaeontological features that distinguish the Oligocene from the Eocene?

GEOLOGY.

FIRST PASS PAPER.

*Candidates are required to give their answers in their own words as far as practicable.**Answer Question 1 and FIVE others.**The figures in the margin indicate full marks.*

1. A mineral has the following composition :— 20
 $\text{Al}_2\text{O}_3 = 39.5$, $\text{SiO}_2 = 46.5$, $\text{H}_2\text{O} = 14.0$.
 Calculate the formula, and give a brief account of the occurrence of this mineral in nature.
2. Give an account of the Nicol prism, explaining its action and uses. What is the difference between a Nicol prism and a dichroscope? 16
3. State in tabular form the chemical formula, crystal system, colour, and approximate hardness of the following minerals :— 16
 Copper-glance, bismuthinite, bournonite, diaspore, gibbsite, natron, sphene, and serpentine.
4. What do you understand by isomorphism? Illustrate your answer by reference to any suitable group of minerals. Mention a case of dimorphism amongst minerals, 16

5. Give a brief account of the peridotites, and name the minerals of economic value that are sometimes found in association with these rocks. 16

6. Is bauxite a mineral or a rock? What do you know of the mode of occurrence and value of the Indian bauxites? 16

7. Write a short account of the causes of vulcanicity. 16

Either,

8. (a) Describe any mineral deposit of possible economic value that you have personally examined or visited. 16

Or,

(b) Give a brief account of the history of a piece of granite in so far as this may be deduced from the study of a thin slice under the microscope.

GEOLOGY.

SECOND PASS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal numerical value.

GROUP A.

Answer THREE questions.

1. State what is known or inferred regarding the temperature of the earth below the surface,

2. Describe some of the geological formations due to glacial action.

3. Explain the formation of caverns in limestone regions.

4. Describe the various appearances assumed on a map by strata cut through, on a hill-slope, by a ravine or torrent gully, according to the various angles and directions of dip of the strata.

5. What are the characteristic features that distinguish the pre-Cambrian formations?

GROUP B.

Answer TWO questions.

6. Enumerate the principal subdivisions of the mesozoic or secondary era, mentioning their most characteristic fossils.

7. Give an outline of the classification of the Echinodermata, with some of the most important facts concerning their distribution through geological times.

8. Amongst the Arthropoda, what groups are particularly useful for recognizing the age of the rocks in which their fossil remains may occur?

9. Describe briefly the main features, structural, stratigraphical, and palaeontological or palaeobotanical, of an Indian Gondwana coal-field.

ZOOLOGY.

Paper-setters— { F. H. GRAVELY, ESQ., M.Sc.
 MAJOR R. E. LLOYD, M.D., D.Sc., I.M.S.
 DR. B. L. CHOWDHURY, D.Sc.

FIRST PASS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Answer FIVE questions.

1. Give an outline of the classification of Protozoa and describe 20 the different modes of reproduction in Suctorina.
2. Describe and classify the different histological elements in 20 Porifera, stating the functions of each.
3. Describe the different forms of ciliated larvae in the different 20 groups of echinoderms, and indicate how all of these forms may be derived from a single primitive form.
4. Describe the developmental cycle of Distomum and contrast 20 this with that of Taenia solium.
5. Give an account of the anatomy of Peripatus, pointing out its 20 bearing on the relationship between annelids and arthropods.
6. Describe and explain the classification of the Lamellibranchs. 20

ZOOLOGY.

SECOND PASS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

Note more than FIVE questions are to be attempted, and full marks may be obtained by answering THREE questions very fully.

1. Describe the development of the chick up to the time of the completion of the amnion.
2. Describe and compare the skulls of the Python and the Crocodile.
3. What is meant by the fore-brain? Describe the fore-brain in an elasmobranch fish, a teleostean fish, and a mammal.
4. Give a brief account of the anatomy and development of Balanoglossus, laying stress on those features which belong to the vertebrate type.
5. Write all you know of the structure, classification, and distribution of the Edentata.
6. What do the following words call to mind:—Sphenodon, stapes, baleen, Echidna, Hipparion, endostyle, Dromaeus?

ZOOLOGY—PRACTICAL.

The figures in the margin indicate full marks.

1. Dissect the specimen A provided, so as to expose the portal 34
systems, indicating the principal parts of these systems with flag-
labels.
 2. Stain, mount, identify and make a descriptive drawing of 33
the specimen B provided.
 3. Identify the specimens C to M, giving reasons for your identi- 33
fications.
-

M.A. Examination.

1918.

ENGLISH.

FIRST PAPER.

The questions carry equal marks.

Answer THREE questions from each half.

FIRST HALF.

Examiner—S. N. BHADRA, ESQ., M.A.

1. 'The most flourishing period of Anglo-Saxon poetry was between 650 and 825 A.D.'

Give some account of the principal works and indicate their general characteristics.

2. Indicate the importance in the history of English literature of the appearance of

(a) Sir John Mandeville's 'Travels.

(b) Chaucer's Canterbury Tales.

3. Give an account of the Ballad Poetry of England in the latter half of the 15th century and account for its popularity.

4. Characterise the Prose style of

Jeremy Bentham

or

Hooker

or

Bacon.

5. Give some account of early English Theatres.

6. State what you know of *two* of the following :—

(a) Boke of the Sparrow.

(b) King's Quhair.

(c) Toxophilus.

(d) The Defence of Poesy.

SECOND HALF.

Examiner—RAI LALITMOHAN CHATTERJEE, BAHADUR, M.A.

1. Illustrate the chief characteristics of seventeenth century lyrics.

2. Give a brief account of *two* of the following :—Robert Burton, John Bunyan, Samuel Pepys, Daniel Defoe.

- (ii) What might you think,
 If I had play'd the desk or table-book,
 Or given my heart a winking, mute and dumb,
 Or look'd upon this love with idle sight;
 What might you think ?

GROUP B.

(iii) And for your green wound—your Balsamum and your St. John's wort are all mere gulleries and trash to it, especially your Trinidado : your Nicotian is good too.

(iv) Well, if he read this with patience I'll troll ballads for Master John Trundle yonder, the rest of my mortality.

GROUP C.

- (v) The first, for many I know not, being far off,
 Peleus the Larissæan, couched with whom
 Sleeps the white sea-bred wife and silver-shod,
 Fair as fled foam.
- (vi) When flying the dove was snared
 As with men's hands, we shot after and sped
 Clear through the irreameable Symplegades.

GROUP D.

(vii) What is this incendiary stuff and trumpery to me ? Our house may travel through the air like the house of Loretto, for aught I care, if I am to be miserable in it.

(viii) Was it for this I have been dreaded both my ins and outs ? Have I been chaired at Wildman's and a speaker at Merchant-Tailors' Hall ? Have I had my hand to addresses, and my head in the print shops,—and talk to me of suspects ?

GROUP E.

- (ix) Fear o'ershades me
 Good expedition be my friend, and comfort
 The gracious queen, part of his theme, but nothing of his ill-
 ta'en suspicion !
- (x) 'Tis well they are whispering ; clamour
 Your tongues, and not a word more.

SECOND HALF.

Examiner—PRAPHULLACHANDRA GHOSH, ESQ., M.A.

1. Write a note on *one* of the following themes :—
 - (i) Shakespeare as a critic of the histrionic art.
 - (ii) Shakespeare's use of prose.

2. Answer one of the following :—

(i) Annotate the passage quoted below and explain the political creed expressed in it :—

The heavens themselves, the planets, and this centre
 Observe degree, priority, and place,
 Insisture, course, proportion, season, form
 Office, and custom, in all line of order :
 And therefore is the glorious planet Sol
 In noble eminence enthron'd and sph'rd
 Amidst the other ; whose med'cinable eye
 Corrects the ill aspects of planets evil,
 And posts, like the commandment of a king,
 Sans check, to good and bad : but when the planets
 In evil mixture to disorder wander,
 What plagues, and what portents, what mutiny,
 What raging of the sea, shaking of earth,
 Commotion in the winds, frights, changes, horrors,
 Divert and crack, rend and deracinate
 The unity and married calm of states
 Quite from their fixture ! O ! when degree is shak'd,
 Which is the ladder to all high designs,
 The enterprize is sick. How could communities,
 Degrees in schools, and brotherhoods in cities,
 Peaceful commerce from dividable shores,
 The primogenitive and due of birth,
 Prerogative of age, crowns, sceptres, laurels,
 But by degree stand in authentic place ?
 Take but degree away, untune that string,
 And, hark ! what discord follows ; each thing meets
 In mere oppugnancy : the bounded waters
 Should lift their bosoms higher than the shores,
 And make a slop of all this solid globe ;
 Strength should be lord of imbecility,
 And the rude son should strike his father dead :
 Force should be right ; or rather, right and wrong—
 Between whose endless jars justice resides—
 Should lose their names, and so should justice too.
 Then everything includes itself in power,
 Power into will, will into appetite ;
 And appetite, an universal wolf,
 So doubly seconded with will and power,
 Must make perforce a universal prey,
 And last eat up himself.

(ii) Paraphrase the following lines and analyse the mental condition of the speaker revealed therein :—

If it were done when 'tis done, then 'twere well
 It were done quickly ; if the assassination
 Could trammel up the consequence, and catch
 With his surcease success ; that but this blow
 Might be the be-all and the end-all here,
 But here, upon this bank and shoal of time,
 We'd jump the life to come. But in these cases
 We still have judgment here ; that we but teach
 Bloody instructions, which, being taught, return
 To plague the inventor ; this even-handed justice
 Commends the ingredients of our poison'd chalice
 To our own lips. He's here in double trust :

First, as I am his kinsman and his subject,
 Strong both against the deed : then as his host,
 Who should against his murderer shut the door
 Not bear the knife myself. Besides, this Duncan
 Hath borne his faculties so meek, hath been
 So clear in his great office, that his virtues
 Will plead like angels trumpet-tongued against
 The deep damnation of his taking-off ;
 And pity, like a naked new-born babe,
 Striding the blast, or heaven's cherubin, hors'd
 Upon the sightless couriers of the air,
 Shall blow the horrid deed in every eye,
 That tears shall drown the wind. I have no spur
 To prick the sides of my intent, but only
 Vaulting ambition, which o'erleaps itself
 And falls on the other—

(iii) Annotate the following passage, and with a brief note on Shakespeare's delineation of the Clown in his plays :—

Jaq. I am ambitious for a motley coat.

Duke S. Thou shalt have one.

Jaq. It is my only suit ;
 Provided that you weed your better judgments
 Of all opinion that grow rank in them
 That I am wise. I must have liberty
 Withal, as large a charter as the wind,
 To blow on whom I please ; for so fools have ;
 And they that are most galled with my folly,
 They most must laugh. And why, Sir, must they so ?
 The ' why ' is plain as way to parish church :
 He that a fool doth very wisely hit,
 Doth very foolishly, although he smart,
 Not to seem senseless of the bob ; if not,
 The wise man's folly is anatomis'd
 Even by the squandering glances of the fool.
 Invest me in my motley : give me leave
 To speak my mind, and I will through and through
 Cleanse the foul body of the infected world,
 If they will patiently receive my medicine.

ENGLISH.

THIRD PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiners— { M. GHOSH, ESQ., M.A.
 { S. SEN, ESQ., M.A.

1. Explain carefully, while marking the context, one *only* of each of the following groups of alternative passages :—

(a) Must a game be played for the sake of pelf ?

5

Where a button goes, 'twere an epigram
To offer the stamp of the very Guelph
The true has no value beyond the sham :
As well the counter as coin, I submit
When your table's a hat, and your prize a dram
Stake your counter as boldly every whit
Venture as truly, use the same skill,
Do your best, whether winning or losing it,
If you choose to play ! is my principle
Let a man contend to the uttermost
For his life's set prize, be it what it will !

Or,

That's if ye carve my epitaph aright
Choice Latin, picked phrase, Tully's every word
No gaudy ware like Gandolf's second line—
Tully, my masters ? Ulpian serves his need !
And then how shall I live through centuries,
And hear the blessed mutter of the mass
And see God made and eaten every day
And feel the steady candle-flame, and taste
Good strong, thick stupifying incense smoke !

(b) To every natural form, rock, fruit or flower

Even the loose stones that cover the highway,
I gave a moral life : I saw them feel,
Or linked them to some feeling : the great mass
Lay bedded in a quickening soul, and all
That I beheld respired with inward meaning.
Add that whate'er of Terror or of Love
Or Beauty, Nature's daily face put on
From transitory passion, unto this
I was as sensitive as waters are
To the sky's influence in a kindred mood
Of passion ; was obedient as a lute
That waits upon the touches of the wind.

5

Or,

Sometimes, more sternly moved I would relate
How vanquished Mithridates northward passed

And hidden in the cloud of years become
 Odin, the father of a race by whom
 Perished the Roman Empire ; how the friends
 And followers of Sertorius, out of Spain
 Flying found shelter in the Fortunate Isles
 And left their usages, their arts and laws
 To disappear by a slow gradual death
 To dwindle and to perish one by one
 Starved in those narrow limits : but not the soul
 Of Liberty which fifteen hundred years
 Survived. . .

- (c) Sometime let gorgeous Tragedy
 In sceptred pall come sweeping by,
 Presenting Thebes or Pelop's line,
 Or the tale of Troy divine
 Or what though rare of later age
 Ennobled hath the buskined stage.
 But, O sad Virgin ! that thy power,
 Might raise Musaeus from his bower,
 Or bid the soul of Orpheus sing
 Such notes as warbled to the string
 Drew iron tears down Pluto's cheek
 And made hell grant what love did seek ;
 Or call up him who left half-told
 The story of Cambuscan bold,
 Of Camball and of Algarsife
 And who had Canace to wife.

5

Or,

How well could I have spared for thee, young swain,.
 Enow of such as, for their bellies' sake
 Creep, and intrude and climb into the fold !
 Of other care they little reckoning make
 Than how to scramble at the shearers' feast,
 And shove away the worthy bidden guest.
 Blind mouths ! that scarce themselves know how to hold
 A sheep-hook, or have learnt aught else the least
 That to the faithful herdman's art belongs !
 What recks it them ? What need they ? they are sped :
 And when they list their lean and flashy songs
 Grate on their scrannel pipes of wretched straw ;
 The hungry sheep look up and are not fed

2. Discuss the various aspects of Browning's philosophy of failure 10
 in " The Grammarian's Funeral," " Andrea del Sarto " and " Rabbi
 ben Ezra " or from any other poems in your Selections.

Or,

Estimate the descriptive powers of Milton, Wordsworth and Brown-
 ing respectively from typical passages like the description of flowers
 in " Lycidas," of sunrise in the Fourth Book of the " Prelude," of
 the Alpine gorge in " By the Fireside."

How do these poets differ in their attitude towards Nature ?

3. Define clearly the various stages of Wordsworth's poetical 10
 development under the influences of Nature as recorded in the
 Prelude. Can you trace any similar evolution of the real Milton by
 an examination of his youthful poems from " L'Allegro "
 " Lycidas," and on to the latest of his sonnets ?

Or,

Show the Miltonic influence on Wordsworth in the blank verse of the *Prelude*, and contrast it with the 'nobly plain' manner of Wordsworth in its more inspired passages. What, in your opinion, are the true and characteristic excellences of the blank verse of Milton, Wordsworth and Browning respectively?

4. Explain carefully *either* of the following passages :—

15

But he, though blind of sight,
Despised, and thought extinguished quite,
With inward eyes illuminated,
His fiery virtue roused
From under ashes into sudden flame,
And as an evening dragon came,
Assailants on the perched roosts
And nests in order ranged
Of tame villatic fowl, but as an eagle
His cloudless thunder bolted on their heads
So, virtue given for lost,
Depressed and overthrown as seemed ;
Like that self-begotten bird
In the Arabian woods embost
That no second knows nor third,
And long erewhile a holocaust,
From out her ashy womb now teemed,
Revives, reflowerishes, then vigorous most
When most unactive deemed ;
And though her body die, her fame survives,
A secular bird, ages of lives.

Or,

There are flashes struck from midnight's
There are fire-flames noondays kindle
Whereby piled-up honours perish
Whereby sworn-ambitions dwindle
While just this or that poor impulse
Which for once had play unstified
Seems the sole work of a life-time
That away the rest have trifled.

Doubt you, if in some such moment
As she fixed me, she felt clearly
Ages past the soul existed,
Here an age 'tis resting merely,
And hence fleets again for ages ;
While the true end sole and single
It stops here for is this love-way
With some other soul to mingle.

Else it loses what it lived for,
And eternally must lose it ;
Better ends may be in prospect
Deeper blisses, if you choose it.

But this life's end and this love's bliss
Have been lost here. Doubt you whether
This she felt, as looking at me
Mine and her souls rusted together ?

SECOND HALF.

Examiner—SUSILKUMAR DE, ESQ., M.A.

1. Explain the details of the allegory of the Garden of Adonis, 13
noting carefully any Platonic conception embodied in it, and indicate generally Spenser's method of delineating allegorical figures. In what ways is Spenser indebted to allegorical poets preceding him ?

Or,

Describe briefly the different types of Chastity and Unchastity, figuring in Books III and IV of the *Fairie Queene*, noting specially Spenser's characterisation of the various types of virtuous womanhood and criticising, in this connexion, the view that in his conception of the character of Britomart, Spenser followed "not so much his own imagination as that of Ariosto when he portrayed the woman-knight Bradamante."

Or,

Speaking of Coleridge's *Love*, a certain critic observes that the poem "is flawed by a certain amount of namby-pambliness from which none of the Lake School escaped when they tried passion." Discuss, comparing or contrasting, in view of the above criticism, the love-poems of Coleridge and Wordsworth with those of Shelley, Keats, and Byron.

Or,

Explain briefly the different points of view from which Wordsworth, Shelley, and Keats respectively regarded the relation of man to nature, and point out the resulting divergence in their methods of delineating the various aspects of nature. Illustrate your answer, referring specially to the pure nature-lyrics—the flower-poems, bird-lyrics, and poems of animal life—in your Selection.

GROUP A.

2. Explain any *one* of the following passages, indicating clearly 6
the place of each of those you select in the poem from which it is taken :—

- (a) Drive my dead thoughts over the universe,
Like wither'd leaves to quicken a new birth ;
And, by the incantation of this verse,
Scatter, as from an unextinguish'd hearth
Ashes and sparks, my words among mankind !
- (b) Me this uncharter'd freedom tires :
I feel the weight of chance-desires ;
My hopes no more must change their name ;
I long for a repose that ever is the same.
- (c) Heard melodies are sweet, but those unheard
Are sweeter : therefore, ye soft pipes, play on
Not to the sensual ear, but more endear'd,
Pipe to the spirit ditties of no tone.

- (d) O joy ! that in our embers
Is something that doth live,
That Nature yet remembers
What was so fugitive !

GROUP B.

Explain any *one* of the following passages, with notes on the references and symbolisms, or wherever else needed :—

- (a) Then shall a royall virgin raine, which shall
Stretch her white rod over the Belgicke shore,
And the great Castle smite so sore withall
That it shall make him shake, and shortly learne to fall.
- (b) And shall see Stamford, though now homely hid,
Then shine in learning, more then even did
Cambridge or Oxford, England, goodly beames.
- (c) Much more of price and of gracious powre
Is this then that same water of Ardenne,
The which Rinaldo dranck in happie howre
Described by that famous Tuscan penne.
- (d) That daintie Rose, the daughter of her Morne,
More dear then life she tendered, whose flowre
The girlond of her honour did adorne.

UNSEEN PASSAGES.

3. Bring out the sense of any *one* of the following passages, clearing up all difficulties of thought or expression :—

- (a) Methought I saw the grave where Laura lay,
Within that temple where the vestal flame
Was wont to burn ; and passing back that way,
To see the buried dust of living fame,
Whose tomb fair Love and fairer Virtue kept,
All suddenly I saw the Faery Queen ;
At whose approach the soul of Petrarch wept ;
And henceforth those Graces were not seen,
For they this Queen attended ; in whose stead
Oblivion laid him down on Laura's hearse.
Hereat the hardest stones were seen to bleed,
And groans of buried ghosts the heavens did pierce :
Where Homer's spright did tremble all for grief,
And cursed the access of that celestial thief.
- (b) Wanting is—what ?
Summer redundant,
Blueness abundant
—where is the blot ?
Beamy the world. yet a blank all the same,
Frame-work which waits for a picture to frame ;
What of the leafage, what of the flower ?
Roses embowering with nought they embower !
Come then, complete incomplection, O comer,
Pant through the blueness, perfect the summer !

Breathe but one breath
 Rose-beauty above,
 And all that was death
 Grows life, grows love,
 Grows love!

- (c) I thought once how Theocritus had sung
 Of the sweet sad years, the dear and wished-for years,
 Who each one in a gracious hand appears
 To bear a gift for mortals, old or young:
 And as I mused it in his antique tongue,
 I saw, in gradual vision through my tears,
 The sweet, sad years, the melancholy years,
 Those of my own life, who by turns had flung
 A shadow across me. Straightway I was 'ware
 So weeping, how a mystic shape did move
 Behind me, and drew me backward by the hair,
 And a voice said in mastery while I strove—
 "Guess now who holds thee?"—"Death" I said. But,
 there,
 The silver answer rang—"Not Death, but Love."
- (d) Great wrong I do, I can it not deny;
 To that most sacred Empresse, my dear dred,
 Not finishing her Queene of Faëry,
 That mote enlarge her living prayes, dead,
 But Lodwick, this of grace to me arcad:
 Do you not thinck th' accomplishment of it
 Sufficient werke for one mans simple head,
 All were it, as the rest, but rudely writ?
 How then should I, without another wit,
 Thinck ever to endure so tedious toyle!
 Sith that this one is tossed with troublous fit
 Of a proud love, that doth my spirite spoyle.
 Ceasse then, till she vouchsafe to grawnt me rest;
 Or lend you me another living brest.

ENGLISH.

FOURTH PAPER.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks.

FIRST HALF.

Examiner—F. W. SUDMERSSEN, ESQ., B.A.

1. "Bacon's strength appears to best advantage in his speculations on character and conduct." Discuss this in connection with Bacon's Essays and give illustrative references. 10

Or,

Write a critical review of Bacon's Essay on "The true greatness of kingdoms and estates."

2. Write a critical analysis of Lowell's study of *Abraham Lincoln* or of Carlyle. 10

3. Explain and comment on any *four* of the following, indicating the context:— 10

(a) The way of fortune is like the milky way in the sky.

(b) As for Cleon's dream, I think it was a jest

(c) The part of Epimetheus might well become Prometheus in the case of discontentments.

(d) There are four principal sources from which Chaucer may be presumed to have drawn for poetical suggestion or literary culture.

(e) Truth to nature can be reached ideally, never historically.

(f) No sham could encounter those terrible eyes in Dublin without wincing.

4. Give in your own words, and comment on, the meaning and purpose of the following passage:— 20

In the outset of life our imagination has a body to it. We are in a state between sleeping and waking, and have indistinct but glorious glimpses of strange shapes, and there is always something to come better than what we see. As in our dreams the fulness of the blood gives warmth and reality to the coinage of the brain, so in youth our ideas are clothed and fed and pampered with our good spirits; we breathe thick with thoughtless happiness, the weight of future years presses on the strong pulses of the heart, and we repose with undisturbed faith in truth and good. As we advance we exhaust our fund of enjoyment and of hope. We are no longer wrapped in lamb's wool, lulled in elysium. As we taste the pleasures of life, their spirit evaporates, the sense palls; and nothing is left but the phantoms, the lifeless shadows of what has been!

The figures in the margin indicate full marks.

SECOND HALF.

Examiner—RAJANIKANTA GUHA, ESQ., M.A.

1. Narrate briefly the circumstances under which the *Arcopagitica* was written. What place does it hold in the history of Freedom of Thought? 10

Or,

What are the grounds on which Milton opposes the censorship of the press? Summarise his arguments on "the no good it can do," and "the manifest hurt it causes." 10

2. Examine the statement made by Carlyle that *Sartor Resartus* is "symbolical myth all." Give an exposition of his clothes-philosophy. 10

Or,

"To me also, entangled in the enchanted forests, demon-peopled, doleful of sight and of sound, it was given, after weariest wanderings, to work out my way into the higher sunlit slopes—of that Mountain which has no summit, or whose summit is in Heaven only!" 10

Trace the spiritual history of Teufelsdröckh as indicated in this passage.

3. Elucidate *two* of the following (one from A, and one from B):— 10

A.

(a) Assuredly we bring not innocence into the world, we bring impurity much rather; that which purifies us is trial, and trial is by what is contrary.

(b) Truth and understanding are not such wares as to be monopoliz'd and traded in by tickets and statutes and standards.

(c) Opinion in good men is but knowledge in the making.

B.

(a) I knew not that spiritual music can spring only from discords set in unison; that but for Evil there were no Good, as victory is only possible by battle.

(b) Our Works are the mirror wherein the spirit first sees its natural lineaments.

(c) Speech is of Time, Silence is of Eternity.

4. Give the sense of *either* of the following in your own words:— 20

(a) Poetry is the record of the best and happiest moments of the happiest and best minds. We are aware of evanescent visitations of thought and feeling sometimes associated with place or person, sometimes regarding our own mind alone, and always arising unforeseen and departing unbidden, but elevating and delightful beyond all expression; so that even in the desire and regret they leave, there cannot but be pleasure, participating as it does in the nature of its object. It is as it were the interpenetration of a diviner nature through our own; but its footsteps are like those of a wind over the sea, which the coming calm erases, and whose traces remain only, as on the wrinkled sand which paves it. These and corresponding conditions of being are experienced principally by those of the most delicate sensibility and the most enlarged imagination; and the state of mind produced by them is at war with every base desire. The enthusiasm of virtue, love, patriotism, and friendship, is essentially linked with such emotions; and whilst they last, self appears as what it is, an atom to a universe. Poetry redeems from decay the visitations of the divinity in man.

(b) It is easy to talk, as Macaulay does, of the higher and middling orders being the natural representatives of the human race. But are they the natural representatives of the needs of the human race? Have the higher and middling orders no prejudices, interests, indolence of their own, to deaden their perception of Rousseau's resplendent commonplace: "Tis the people that compose the human race; what is not people is so small a concern that it is not worth the trouble of counting"? Bright put the same civilising truth in homelier words when he reminded us that great halls and baronial castles do not make a nation; the nation in every country dwells in the cottage. This is the cardinal thought that, under whatever name and in whatever apparel, guides and inspires Benthamism, Socialism, Scientific Economy, Rationalism, Liberalism, political Positivism, even Christianity, and all the other multitudinous struggles in the world for moral renovation of human government. The philosophy is easy; not so easy for generations of men and electors to be born over again; not so the readjustment of machinery in a settled community with ancient roots and its main-springs of action established and accepted.

ENGLISH

GROUP A.

FIFTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiner—SUNITIKUMAR CHATTERJEE, ESQ., M.A.

1. Render into Modern English *one* of the following passages, and comment on *five* of the words in italics in the passage you select:— 10

(i) Blisful was the first age of men! They *helden* hem apayed with the metes that the trawe feldes *broughten* forth. They ne distroyede nor deceivede nat *hemself* with outrage. They weren *wont* lightly to slaken *hir* hunger at even with acornes of okes. They ne coude nat medly the yifte of Bachus to the cleer hony; that is to seyn, they coude make no piment nor clarree; no they coude nat medle the brighte fleeses of the contree of *Seriens* with the venom of Tyrie; that is to seyn, they coude nat deyen whyte fleeses of Serien contree with the blode of a *maner* shelfisse that men finden in Tyrie, with whiche blood men deyen purpur. They *sleepen* hoolsom *sleepes* up-on the gras, and drenken of the *renninge* wateres; and layen under the shadwes of the *heye* pyn-trees.

(ii) The causes that *oghte* *move* a man to Contricion *been* six. First, a man shal remembre him of *hise* sinnes; / but *loke* he that *thilke* remembrance ne be to him no *delyt* by no wey, but greet shame and *sorwe* for his gilt. For Job seith: 'sinful men doon werkes worthy of confession.' / And therefore seith Ezechie: 'I wol remembre me alle the yeres of my lyf, in bitternesse of myn herte.' / And god seith in the Apocalips: '*remembreth* yow fro *whennes* that ye been falle'; for *biforn* the tyme that ye sinned, ye were the children of god, and limes of the regne of god; / but for your sinne ye been *woxen* thral and foul, and membres of the *feend*, hate of aungels, sclandre of holy chirche, and fode of the false serpent; perpetuel matere of the fyr of helle. /

2. Annotate fully *three* of the following passages:—

15

- (i) A long castel with walles whyte,
By soynt Iohan! on a riche hill.
- (ii) I trow hit was in the dismalle
That was the ten woundes of Egypte.
- (iii) He wayted many a constellacioun
Er he had don this operacioun;
And knew ful many a seel and many a bond.
- (iv) And, after that she of hir swough gan breyde, (abreyde)
Right in hir haukes ledene thus she sayde.

3. What are the main characteristics of the syntax of Old English? How far has English syntax been influenced by the syntax of French?

Or,

Discuss the syntactical peculiarities of *six* of the following expressions: *These kind of knaves, jewel of a man, their tempered youth with aged father's awe, his greedy prey, foure so fast, a fair-spoken man, some will dear abide it, what trade art thou, us sleeping, a iiii sore horses, sterile curse, half the day.*

4. Write a note on *English Adverbs*.

6

Or,

Discuss in brief the history of the following *sounds* of Modern English: *š* (= *sh*), *tš* (= *ch*), *w*.

5. Institute a brief comparison, in their sounds and inflections, between Chaucer's English and the English of the present day.

Or,

Write a historical note on *the English Pronoun of the second person*, and on the English numerals *four, five, twelve, hundred*.

Or,

Comment on *ten* of the following words: *yes, whether, thrice, will-y-nilly, can, chid, each, she, other, inmost, nearer, better, forlorn, over*.

SECOND HALF.

Examiner—T. S. STERLING, ESQ., M.A.

1. Render into Modern English *two* of the following passages, adding etymological and grammatical notes:—

- (1) This sowdanesse, whom I thus blame and warye,
Leet privly hire conseil goon hire way.
What sholde I in this tale lenger tarye?
She rydeth to the sowdan on a day,
And seyde him that she wolde reneye her lay.
- (2) The hote somer had maad his howe al broun;
And, certainly, he was a good felawe.
Ful many a draughte of wyn had he y-drawe
From Burdeux-ward, whyl that the chapman sleep.
- (3) And som man wolde out of his prisoun fayn,
That in his hous is of his meynee slayn.
Infinite harmes been in this mateere,
We witen nat what thing we preyon heere.
- (4) Thy temple wil I worshipe evermo,
And on thyn auter where I ride or go,
I wol doon sacrifice and fires beete.

2. Write a note on *one* of the following:—

10

- (1) Chaucer's progress in the art of story-telling.
- (2) Chaucer's treatment of his sources with regard to the *Knight's Tale*.
- (3) Chaucer's merits as a character-painter.

3. Render into Modern English *three* of the following passages, adding full etymological, grammatical, and metrical notes:—

- (1) He wook, and tolde his felawe what he mette,
And preyde hym his viage for to lette;

- As for that day, he preyde hym to byde.
 His felawe, that lay by his boddes syde.
 Gan for to laughe, and scorned him ful faste ;
 " No dreem," quod he, " may so myn herte agaste,
 That I wol lette for to do my thynges."
- (2) " Madame," he seyde, " yo mooto foryeve it me,
 Though I do thyng to which I am constreyned,
 Yo been so wys, that ful wel knowe ye
 That lordes heestes mowe nat been y-feyned ;
 They mowe wel been biwailed and compleyned,
 But men mooto nede unto hise lust obeye,
 And so wol I: ther is namoore to seye."
- (3) " And after him by order shul ye chese,
 After your kynde, everich as yow lyketh,
 And as your hap is shul ye wynne or lose ;
 But which of yow that love most entriketh
 God sende him hir that sorest for him syketh."
 And therewithal the tereel gan she callo,
 And seyde, " My sone, the choys is to thee falle."
- (4) For th'ilke grounde that ber'th the wedes wikke
 Ber'th eek these holsom herbes as ful ofte ;
 And next the foule netle, rough and thikke,
 The rose waxeth swete, smothe, and softe ;
 And next the valey is the hil o-lofte ;
 And next the derke nighte, the gladde morwe ;
 And also joye is next the fyn of sorwe.

ENGLISH.

GROUP A.

SIXTH PAPER.

*Candidates are required to give their answers in their own words
 as far as practicable.*

FIRST HALF.

Examiner—J. W. HOLME, ESQ., M.A.

Answer THREE questions only.

The questions carry equal marks.

1. Indicate Shakespeare's attitude to the contemporary pastoral convention of such writers as Lyly and Sidney.
2. Discuss the possible autobiographical element in *Hamlet* and *The Tempest*.
3. What are the moral and aesthetic effects of Shakespearean tragedy upon the spectator ?

4. Write a short appreciation of the quality and dramatic effectiveness of Shakespeare's songs.

5. Discuss, with reference to *Macbeth*, *The Merchant of Venice*, *Sejanus* and *Vittoria Corombona* the questions of (a) local colouring and (b) realistic historical background for dramatic action.

SECOND HALF.

Examiner—JAYGOPAL BANERJEE, ESQ., M.A.

Only THREE questions are to be attempted.

The questions carry equal marks.

1. Enumerate the distinctive features of the old sacred plays and the new "drama of art."

2. Write a *connected narrative* of the progress of the Elizabethan drama up to Shakespeare's time, with special reference to the contributions made by *either* of the following:—

(1) Marlowe, (2) Peele.

3. Illustrate *one* of the two following statements:—

(a) "Webster's genius was of a weird, gloomy, morbid cast like Marlowe's raised to a higher power."

(b) "The moral value of 'poetic justice' in the Elizabethan drama is rendered somewhat doubtful by the fact that it is also to be found in the works of poets of questionable morality such as Beaumont and Fletcher."

4. Write a full note on the dramatic use of prose in Elizabethan plays, indicating the underlying principle of the method of passing from verse to prose and *vice versa*.

5. What are the advantages derived from the close alliance of the art of the playwright with that of the actor? Illustrate your answer by concrete instances.

ENGLISH.

GROUP A.

SEVENTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Examiner—J. R. BARROW, ESQ., M.A.

Full marks—50.

Answer any THREE of the following questions.

They are of equal value.

1. Explain the difference between the Classical and Romantic types of Poetry, and state the theory of poetry and poetical composition advanced by Wordsworth and Coleridge, explaining Wordsworth's state-

ment that poetry "is the impassioned expression which is in the countenance of all Science."

2. Sketch Wordsworth's criticism of the fashionable poetry of the 18th century, and the reforms which he proposed to introduce, giving your own opinion: and explain the origin and purpose of the *Lyrical Ballads*.

3. Explain the distinction made by Wordsworth and Coleridge between Fancy and Imagination, and refer to any poem or poems in which you consider that Fancy is predominant and to any in which you consider that Imagination is predominant, explaining your reasons.

4. Sketch the early life of De Quincey, showing how the *Confessions* came to be written. What is meant by the 'aureate' style in prose? Of what other authors is it specially characteristic, and how far is it characteristic of De Quincey? Sketch, in your own words, any one of De Quincey's dream-visions.

5. Name the authors of any three of the following passages, pointing out the peculiarities of style or thought (or both) by which you recognise the authors:—

(a) What a melodious ascent as of a prelude to some impassioned requiem, breathing from the pomps of earth and from the sanctities of the grave? What a *fluxus decumanus* of rhetoric! Time expounded not by generations or centuries, but by the vast periods of conquests and dynasties; by cycles of Pharaohs and Ptolemies, Antiochi and Arsacidae! And these vast successions of time distinguished and figured by the uproars at their inaugurations; by drums and tramlings rolling overhead upon the chambers of forgotten dead—the trepidations of time and mortality vexing at secular intervals the sabbaths of the grave!

(b) Thus does man, in every age, vindicate consciously or unconsciously, his celestial birthright. Thus does Nature hold on her wondrous, unquestionable course; and all our systems and theories are but so many froth-eddies or sand-banks, which she from time to time casts up, and washes away. When we can drain the Ocean into mill-ponds, and bottle up the Force of Gravity, to be sold by retail in gas jars; then we may hope to comprehend the infinitudes of man's soul under formulas of Profit and Loss; and rule over this too, as over a potent engine, by checks, and values, and balances.

(c) If the time should ever come when what is now called Science, thus familiarised to men, shall be ready to put on, as it were, a form of flesh and blood, the poet will lend his divine spirit to aid the transfiguration, and will welcome the Being thus produced as a dear and genuine inmate of the household of man. It is not then to be supposed that any one who holds that sublime notion of Poetry, will break in upon the sanctity and truth of his pictures by transitory and accidental ornaments, and endeavour to excite admiration of himself by arts the necessity of which must manifestly depend upon the assumed meanness of his subject.

(d) He was sprung from a house, ancient indeed and noble, but degraded and impoverished. The kinsman whom he had succeeded had died poor, and, but for merciful judges, would have died upon the gallows. He had great intellectual powers, yet there was one unsound part in his mind. He had naturally a generous and tender heart, but his temper was wayward and irritable. He had a head which statuary loved to copy, and a foot the deformity of which the beggars on the streets mimicked. Distinguished at once by the strength and the weakness of his intellect, affectionate and perverse, a poor lord and a handsome cripple, he required, if ever man required, the firmest and most judicious training.

SECOND HALF.

Examiner—BEJOYGOPAL MUKHERJEE, ESQ., M.A.*Full marks*—50.*The questions carry equal marks.**Answer any THREE questions.*

1. Compare Scott and Jane Auston as novelists, giving illustrative references in support of your remarks. Justify the statement that "Northanger Abbey is throughout a satire on the fictional method of the authoress of *The Mysteries of Udolpho*."

*Or,*Sketch any *one* of the following characters:—

Jeanie Deans; Fanny Price; Mr. Collins; Henry Morton; Saladin.

2. Sketch the story and the leading characters of any *one* of the following novels:—

Waverley; Kenilworth; Emma; Guy Mannering; Ivanhoe; The Bride of Lammermoor.

3. What are the peculiar characteristics of Lamb as an essayist? *Either*, give a brief outline of any *one* of his essays, *or* explain the statement that "if he defends Hogarth from the sentimentalists, he defends Shakespeare from the realists."

4. What is your estimate of Hazlitt as a critic? Give the substance of any *one* of his essays.

5. Show your acquaintance with any *one* of the following:—

Melmoth the Wanderer; Frankenstein; Castle Rackrent; Destiny; Richelieu; Pelham; Mothers and Daughters; The Annals of the Parish.

ENGLISH.

GROUP A.

EIGHTH PAPER.

Examiners— $\left\{ \begin{array}{l} \text{DR. H. STEPHENS, M.A., D.D.} \\ \text{REV. DR. G. HOWELLS, M.A., PH.D.,} \\ \text{B.LITT., B.D.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write an Essay on *one* of the following subjects:—

100

- (a) Paradise, and groves
Elysian, Fortunate Fields—like those of old
Sought in the Atlantic Main—why should they be
A history only of departed things,
Or a mere fiction of what never was?

For the discerning intellect of Man.
 When wedded to this goodly universe
 In love and holy passion, shall find these
 A simple produce of the common day

—*Wordsworth.*

(b) "The poets of the Elizabethan age—excepting perhaps Spenser—seem to have got on very happily and successfully without theories of human life or doctrines respecting human society, but our nineteenth century poets are almost all sorely puzzled about certain problems of existence, and having laboured at their solution, come forward with some lightening of the burden of mystery, with some hope or some solace."—*Fowden.*

(c) The nineteenth century novel stands in the same relation to life as the drama in the Elizabethan age.

(d) English Satire in the Eighteenth Century.

(e) The golden age, which a blind tradition has hitherto placed in the Past, is Before us.—*Carlyle.*

(f) "Might is Right" *versus* "Right is Might."

ENGLISH.

GROUP B.

FIFTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiner—T. S. STERLING, ESQ., M.A.

1. Render into Modern English *three* of the following passages:—

(1) *pā* ic *pā* ðis eall gemundo, ða gemunde ic *ēac* hū ic geseah, *ār* ðām *ðe* hit eall forhergod wære ond forbærned, hū ðā ciricean giond eall Anglecynn stōdon mādma ond bōca gefylða, ond *ēac* micol menigeo Godes ðiowa; ond ðā swiðe lýtle fiorme ðāra bōca wiston, for ðām *ðe* hie hiora nānwuht ōngiotan ne meah-ton, for ðām *ðe* hie nāron ōn hiora āgen geðiode āwritene.

(2) *þæt* Estland is swýðe mycel, and *pār* bið swýðe manig burh, and on *ælcere* byrig bið cyninge. And *pār* bið swýðe mycel hunig, and fiscnað; and se cyning and *pā* ricostan mena drincað mýran meole, and *pā* unspēdigan and *pā* pōowan drincað medo. *pār* bið swýðe mycel gewinn betwēonan him. And ne bið ðār nānig ealo gebrowen mid Estum, ac *pār* bið medo genōh.

(3) Nū sēo burg swele is, *þe* *ār* wæs ealra weorca fæstast ond wunderlecast ond mārast, gelice ond hēo wære to bisene āsteald eallum middangearde, ond *ēac* swelce hēo self spreccende sie tō

eallum monncynne ond cweþe: 'Nū ic þuss gehroren eam ond aweg-gewiten, hwæt, gē magan on mē ongietan ond oncnāwan þæt gē nānuht mid ēow nabbað fæstes ne stranges þætte purhwunigeon mæge.'

(4) Wæs hē se monn in weoruldhāde gesetod oð ðā tide þe hē wæs gelyfedre ylde, and hē nāfre anig lēoð geleornade: and hē for þon oft in gebōrscipe, þonne þær wæs blisse intinga gedēmed, þæt hie ealle sceolden purh endebyrdness bo hearpan singan, þonne hē geseah þā hearpan him nēal: can, þonne ārās hē for seome from þāin symble, and hām ēode tō his hūsc.

2. Write out the principal parts of all the verbs and participles in 1 (4). 6

3. Answer *one* of the following:— 6

(1) Estimate the importance of the Saxon chronicle in the history of the English Language.

(2) Classify Old English nouns. Give examples of each class.

(3) What are the characteristic features of Old English prose with regard to (a) subject-matter, (b) style?

Unseen.

4. Translate into Modern English:—

Disum eallum þus gedōnum, ēode Apollonius, se mārā cyning. wið ðā sē. Ðā geseah hē ðone ealdan fiscere, ðe hine ār nacodne underfēng. Ðā hēt se cyning hine fārlice gola ccean, and tō ðāre cynelican healle gelādan.

Ðā-ðā se fiscere ðæt geseah, ðæt hine ðā cēpan woldon niman. Ðā wende hī ārest ðæt hine man sceolde ofslēan; ac, mid-ðām-ðe hē cōm intō ðæs cyninges healle, ðā hēt se cyning hine lādan tōfōran ðāre cwōne, and þus cwæð: "Ealā, ðū ēadige cwēn, ðis is mīn tācenbora, ðe mē nacodne underfēng, and mē getāhte ðæt ic tō ðō becōm." Ðā besoah Apollonius se cyning tō ða m fiscere, and cwæð. "Ealā, welwillenda ealda, ic eom Apollonius se Tyrisca, ðā m ðū sealdest healfne ðinne wāfels." Him goaf ðā se cyning twā hund gyldeora peninga, and hæfde hine tō gefōran ðā-hwile-ðe hē lifde.

SECOND HALF.

Examiner—R. C. GOFFIN, ESQ., M.A.

1. Translate *one* of the following passages:—

13

(a) þā ðār sōna wearð
edhwyrft eorlum, siþðan inne fealh
Grēndles mōdor; wæs se gryre lāssa
efne swā micle swā bið mægpa cræft,
wiggyre wifes be wāpnedmenn,
þonne heoru bunden, hamere gefūren,
sweord swāte fāh swin ofer helme
ecgum dyhtig andweard scireð.
þā wæs on healle heardæg togen,
sweord ofer setlum siðrand manig
hafen handa fæst; helm ne gemunde,
byrnan sīde, þe hine se brōga angeat.

- (b) Wāt sē þe cunnað
 hū slīpen bið sorg tō gefēran
 þām þe him lýt hafað lēofra geholena :
 warað hine wræclāst, nāles wunden-gold.
 ferðloca frēorig, nāles foldan blād :
 gemon hē sēlescegas and sineþege,
 hū hine on geoguðe his goldwine
 wenede tō wiste : wynn eall gedrēas.
 For þon wāt sē þe sceal his winedryhtnes
 lēofes lārewidum longe forþolian,
 ðonne sorg and slāp smod ætgedre
 earmne ānhagan oft gebindað.

2. Translate, with notes on the words in *italics*, any *three* of the 12 following:--

- (a) ne was *þæt gewrixle* til,
 þæt hið on bā healfa bēgan scoldon
 frēonda fēorum.
- (b) se mere standeð,
 ofer þām hongiað, *hrimge* bearwas,
 wudu wyrtum fæst, wæter oferhelmað.
- (c) wicinga ār, wordum mælde,
 sē on bēot ābēad *brimlīpendra*
 ærende tō þām eorle, þær hē on ðfre stod
- (d) oferdrēncte his duguðe ealle, swylce hīc wæron dēaðe
 geslēgene,
 āgotene gōða gehwylces.
- (e) for þon mē hātran sind
 Dryhtnes drēamas þonne þis dēade lif
 lāne on londe.

3. *Either,*

Give a summary account of Old English verse types, 5

or,

Write a note on the *Charms* as illustrative of Anglo-Saxon popular poetry.

4. Translate:--

20

(From *The Battle of Brunnanburh*).

Swilce þær ēac se frōða mid flāme cōm
 on his cýppe norð Constantīnus,
 hār hilderinc, hrēman ne þorfte
 mēca gemānan : hē was his māga sceard,
 frēonda gefylled on folestede,
 beslāgen æt sæcce, and his sunu forlēt
 on wælstōwe wundum forgrunden,
 geongne æt guðe. Gylpan ne þorfte
 beorn blandenfeax billgeslihtes,
 eald inwitta, nē Anlāf þv mā;
 mid heora herelāfum hlihhan ne þorfton
 þæt hī beadoweorca bēteran wurdon
 on campstede cumbolgehnāstes,
 gārmittingo, gumena gemōtes,
 wæpengewrixles, þæs hē on wælfelda
 wiþ Eadweardes eaforan plegodon.

ENGLISH.

GROUP B.

SIXTH PAPER.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

FIRST HALF.

Examiner—S. C. DE, Esq., M.A.

1. Translate (with notes other than those on italicised portions) 24
into modern English prose any *three* of the following five passages :—

- (a) ‘ God wot’ quod wysdom ‘ pat were nauȝt þe beste ;
And he amendes mowe make ‘ late meynprise hym haue ;
And be *borugh* for his bale ‘ and bigger hym bote,
And so amende pat is mysdo ‘ and evermore þe bettere.’
Witt acorded þer-with ‘ and seide þe same :
‘ Bettere is pat bote ‘ bale adoun brynge,
þan bale be *ybette* ‘ and bote neuere þe bettere.’

- (b) Ensampl’, quod sche, ‘ tak of this tofore
That fro my quhele be rollit as a ball ;
For the nature of It is evermore,
After ane hicht, to vale and ȝoue a fall,
Thus, *quhen me likith*, vp or doune to fall.
Fare wele’, quod sche, and by the ere me toke
So earnestly, that therewithall I woke.

(c) Also herewipal into þe open sizt of ymagis in open chirchis
alle peple, men and wommen and children, mowe come whanne
euere þei wolen in ech tyme of þe day, but so mowe þei not come
in-to þe vce of bokis to be deliuered to hem neiþer to be red
bifore hem; and þefore as forto soone and ofte come into re-
membraunce of a long mater bi ech oon persoon, and also as forto
make pat þe mo persoones come into remembraunce of a mater,
ymagis and picturis seruen in a specialer maner þan bokis doon.

- (d) He kepte his pacient a ful greet del
In houres, by his magic naturel.
Wel coude he fortunen the ascendent
Of his images for his pacient.
He knew the cause of everich maladye,
Were it of hoot or cold, or moiste, or drye,
And where engendred, and of what humour.

- (e) So mot I *theen* thou art a propre man,
And lyk a prelat, by seint Ronyan !
Seide I nat wel ? I can nat speke in terme ;
But wel I woot, thou doost my herte to erme,
That I almost have caught a cardiale.
By *Corpus* bones ! but I have a triacle,
Or elles a draught of moyste and corny ale,
Or but I here anon a mery tale.
Myn herte is lost or pitee of this mayde.

2. Write philological and explanatory notes on the italicised portions of Question 1. 6
3. Give the prosodical characteristics of the passages (a) and (b) of Question 1, and scan the first two lines of the passage (d) of Question 1. 6
4. Discuss the authorship, language, and subject-matter of *Peregrine the Ploughmans Crede*. 12
5. Compare Chaucer and Langland as satirists. 12

Or,

Describe the principal types of female character in Chaucer's *Canterbury Tales*. 12

SECOND HALF.

Examiner—T. S. STERLING, ESQ., M.A.

1. Render into modern English *four* of the following passages, adding metrical, etymological and grammatical notes:— 40

(1) þo was þor wepeing in þe halle,
 And grete cri among hem alle;
Unneþe miȝt old or zong
 For wepeing speke a word wiþ tong.
 þai kneled adoun al yfere,
 And praid him, ȝif his wille were,
 þat he no schuld fram hem go;
 'Do way', quap he, 'it schal be so.'

(2) And efterward ful some onane
 Into þe toure þe knight gan gane;
 Thurgh þe hole gan he pas.
 Til he come whare þe lady was.
 Bitwene þam was grete joy and blis;
 In armes ful curtaysly þai kys.
 Wele sho wist it was þat knyght
 þat sho had dremyd of anyght.
 Sho said: 'Sir, þou art welkum, here,'
 He said: 'Graimercy, lady dere.'

(3) And þan the fewle commes, and ligh' es apon þe awter, and fanneȝ with his wenges ay till þe forsaid thinges be sett on fire; and þare he brynnes himself all till asches. On þe morue þai fynd in þe asches as it ware a worme; on þe secund day þat worme es turned till a fewle perfetely fourmed; and on þe thridd day it flies fra þat place to þe place whare it was wont to dwell. And so þer es nevermare bot ano.

(4) He cleopede on his cnihtes: 'ȝarewieth eow to fihte,
 For nu is mid ferde icumen Cassibellannus.'
 Heo liðede togadere mid heore speren longe,
 Mid axen, mid sweorden, mid særpe speres orde,
 Hardliche heo heowen; hælmæs þer gollen.
 Feondliche heo feohten; hæfdes þer feollen.

(5) þa answarede Cordoille, lude and ho wiht stille,
 Mid gomene and mid lehtre to hire fader leve:
 "þeo art me leof al so mi fader, and Ich þe al so pi dohter;
 Ich habbe to þe soþfaste love, for we buoȝ swiþe isibbe":
 þus seide þe mæiden Cordoille, and seoððen set swiþe stille.

ENGLISH.

GROUP B.

SEVENTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiner—SUNITIKUMAR CHATTERJEE, ESQ., M.A.

Answer THREE questions only.

1. Institute a morphological comparison between English and Sanskrit.

Explain the following equations :—

- Skt. *bandhana* — OE. *bindan*.
 „ *ni-dāghaḥ* — Gothic *days*, OE. *dæg*,
 „ *śaśāḥ* — Eng. *hare*.
 „ *śrutā* — Eng. *loud*.
 „ *catūr* — Eng. *four*.

2. Give primitive Teutonic forms for six of the following words, and comment on the transformations they have undergone in English: *whole, tooth, quest, listen, tear, brought, hart, think, third, yeoman*.

Or,

Give an account of the primitive Teutonic vowel-system, with the Old English equivalents of the Teutonic vowels, illustrating by means of examples in each case.

3. Describe the conjugational system of primitive Teutonic or Old English, and compare it with that of Modern English.

How would you explain the *-t* in OE. *scealt, liest*, and *gebroht*?

4. Classify the languages of Europe morphologically as well as genealogically, and state briefly in what way English has been influenced by the more important of these.

5. Apply some of the principles of linguistic development to the history of the transformation of primitive Indo-European to Modern English.

SECOND HALF.

Examiner—PRAPHULLACHANDRA GHOSH, ESQ., M.A.

1. Give a brief history of Modern English spelling.

16

Or,

Write a note on Semetic Contribution to the English Vocabulary.

2. Write a note on the Dialectical elements of pre-Chaucerian London English. 16

Or,

Indicate the effects of French influence on Middle English Syntax.

3. Write a note on the differences between the language of Chaucer's poetry and that of his prose. 18

Or,

Write an essay on the English of Shakespeare.

ENGLISH.

GROUP B.

EIGHTH PAPER.

Examiner—DR. H. C. MOOKERJEE, M A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write an Essay on one of the following subjects:— 100

1. The influence on Anglo-Saxon literature of the introduction of Christianity into England.

2. "The worth and importance of Anglo-Saxon literature have been greatly exaggerated."

3. A picture of medieval England, as gathered from the literature of the time.

4. The value of second-rate literature.

5. "Rhyme and metre in poetry are survivals of a childish age."

SANSKRIT.

FIRST PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

The answers to this half should be written in Sanskrit.

FIRST HALF.

Examiner—PANDIT SITARAM SASTRI.

1. (अ) (क) चिद्धितयोरन्यतरस्योत्तरं ब्रूया चकाराङ्कितो 10
व्याख्येयः ।

(अ) यु॒क्तो हि षे॒न्दुं कश्चि॑दध॒व-
बु॒राण॑श्चिन्मन॑सा परि॒यन् ।
ती॒र्थना॑च्छा॒ तातृ॑णा॒मोको॑
दी॒र्घो न सि॒धमा॑ङ्गु॒णोऽप्य॑ ॥ १ ॥

रेखाङ्कितपदानां व्युत्पत्तिप्रदर्शनपूर्वं व्याख्येयोऽयं मन्तः ।

किञ्चात्र कन्दः ?

(क) क॒त॒रा पूर्वा॑ क॒त॒राऽप॑रा॒ऽयोः
क॒थाजा॑ते क॒वयः॑ को वि॒वेद॑ ।
वि॒श्वं त्मना॑ वि॒भूतो॑ यद्व॒नाम॑
वि॒वर्त॑ते अ॒हनी॑ च॒क्रिये॑व ॥

कस्मिन्कर्मस्थेतस्या विनियोग इति प्रदर्शयेत्सर्गं व्याख्येयः ।

का चान्न देवता ?

(घ) अ॒र॒रि॒र्त्तानि॑, रा॒ख्यि॒नस्य॑, वि॒हु॒त्स॒तीना॑म्, सु॒स॒मु॒ध्यम्,
जु॒जु॒र्वा॒म्, क॒व॒च्य॑म्, अ॒श्वान्, पु॒त्सु॑षु॒, ग॒भ॒स्ति॒पूत॑म् ।
व्युत्पादनीया एते शब्दा अर्थव्युत्पत्तिप्रदर्शनपूर्वकम् ।

2. त्रयाणामन्यतमस्योत्तरं विलेखनीयम् ।

10

(१) अ॒दृ॒ष्टा॒ज्ञ॒त्याय॑त्य॒थो ह॑न्ति प॒गय॑ती ।
अ॒थो अ॒व॒ग॒ती ह॒न्यथो॑ पि॒नष्टि॑ पि॒ण्ठती॑ ॥

सन्दर्भशोधनपुरस्सरमेतस्य व्याख्यानं कार्यम् । पूर्वोक्तद्वये स्वर-
प्रचारश्च संप्रदर्शयः ।

(२) होताऽध्वर्यावया अग्निमिन्धो-

ग्राविग्राभ उत शंस्ता सुविप्रः ।

तेन यज्ञेन स्वरं कृतेन

स्विष्टेन वृत्तया आपृणध्वम् ॥ १ ॥

सदृशी रत्ना सदृशीरिदृश्या

दीर्घं सचन्ते वरुणस्य धाम ।

अनवद्यास्विशतं योजनाना-

नेकैका क्रतुं परियन्ति सदाः ॥ २ ॥

रेखाङ्कितपदव्युत्पादनपुरस्सरं व्याख्येये इमे ऋचौ ।

(अ) प्रथमायां होत्रादयः के ? कुत्र चैषामुपयोगः ? आद्ययाः
पदं च कमवबोधयति ?

(ख) द्वितीयायां सदृशीशब्दस्यार्थः कः ? अद्या श्व इति पदयोः
शान्निध्ये बहुवचनस्योपपत्तिः कथम् ?

(ग) एतद्भाष्योपरि अर्वाचीनैः किमाक्षिप्यते ? भाष्यात्तरा-
विपर्यास तस्य समीचीनसमाधानस्य सत्त्वे तस्य प्रदर्शनं कार्यम् ।

(३) ऋचो अक्षरे परमं कोम-

नास्मिन्देवा अधि विश्वे निष्तेदुः ।

यस्मिन् वेदं किमुचा करिष्यति

य इत्तद्विदुस्त इमे समीसते ॥

सायणभाष्यसरस्यैतन्मन्त्रार्थं विवृत्य, वेदानां विभिन्नकालि-
कत्वमिति मते 'ऋग्वेदकाले आत्मविज्ञानाभाव आसीद्' इत्युक्तिर्युज्यते
न वेति सम्यक् परीक्ष्य कस्य युक्ततेति विलेख्यं ?

3. (क) (ख) चिह्नितयोरन्यतरो व्याख्येयः ।

(क) सदृष्यदेवः सविता सवाय

शश्वत्सुमं तदपा वक्रिस्थात् ।

अत्र सविता वक्रिर्वाज्यो वा ? अन्यश्चेत्कुत इति सप्रमाणं
प्रदर्शनीयम् । अन्यार्थं सवितृशब्दस्य प्रयोगेऽत्र प्रवृत्तिनिमित्तं किं,

कुतश्च ? वङ्गस्यविवृत्ते किं बाधकम् ? अत्र सवपदार्थविषये मत-
भेदश्चेत्, स कः ? कस्य युक्तता ? तदपाः शब्दस्य क्रियाविशेषणत्वे
किं विरुध्यते ?

(ख) नानोकांसि दुर्यो विश्वमायुर्वि-
तिष्ठते प्रभवः शोको अग्नेः ।

अत्र '(रात्र्यां प्रवृत्तायां प्राणिनां)' नाना विभिन्नानि ओकांसि
स्थानानि दुःखखिडितान्यभूवन् (दिने व्यवहारार्थं विभिन्नस्थलेषु प्रसृता
रात्रावेकस्थानस्थाः सञ्जाताः) इत्यर्थकरणे किं नोपपद्यते ? शाकल्य-
विभक्तस्य 'दुर्य' इति पदस्य 'दुः, यः' इति विभिन्नपदकरणं दुष्टमदुष्टं
वा ? दुष्टत्वे तत्साधकान्येतदङ्गगतानि प्रमाणानि संप्रदर्श्यानि ।

4. उत्तरयोरन्यतरस्योत्तरं विलेख्यम् ॥

10

(१) याद्राध्यं वरुणो योनिमप्यम्
निशितं निर्मिष्टं जभुराणः ।
विश्वो मार्ताण्डो व्रजमा पृथगीत-
स्यशो जन्मानि सवित्ता व्याकः ॥

अत्र प्रथमाद्भ्यस्य कोऽर्थः ? कस्य तत्र मतभेदः ? कस्य युक्तता ?
वरुणशब्दस्थले 'वारुणः' इति पाठकल्पने किं विरुध्यते ? याद्राध्य-
मित्यस्य 'अतिशीघ्रम्' इत्यर्थकरणे स्याद्वा का-च-नानुपपत्तिः ? का
मा ? कस्तर्हि तदर्थः ?

(२) याद्राध्यमित्यत्र 'याद्, राध्यम्, इति पदविभागो युक्तो
न वा ?

न चेत् कुतः ?

स्वातं मर्मतु दुष्कुना हरिष्यती ।

अत्र स्वराविरोधिनी दुष्कुनाशब्दस्य कीदृशी व्युत्पत्तिः ?
कस्तदर्थः ।

पिता यज्ञानामसुरो विपश्चितां

विमानमग्निर्वयुनं च वाघताम् ।

वाक्कुहतशब्दयोर्वर्णविकारादिना 'वाघताम्' इति पदस्य साधने
किं विरोधकारि ? कौ तर्हि तस्य व्युत्पत्तयर्थे ?

5. वेशार्थविचारे उदात्तादिस्वराणामुपयोगित्वमुदाहरणमुखेन
प्रदर्शनीयम् ।

10

SECOND HALF.

Examiner—PANDIT PASUPATINATH SHASTRI, M.A.

Any ONE of the first two questions and any TWO of the next three are to be attempted.

1. (a) Who are the Ribhus, and what are their functions ? 20
(b) What are the particulars that are related of Rudra in your text-book ?
2. Give an estimate of the state of civilisation as appears from the Second Astaka of the Rig Veda. 20
3. What are the arguments that you can advance to show that the Mantras have no meaning ? 15
4. How do you establish the proposition that the injunction 'साध्याऽधेयः' extends to interpretation also ? 15
5. Fully explain the following couplets :— 15

वायुर्वा इत्येवमादेरर्थवादस्य मानता ।
न विधेयेऽस्ति धर्मः किं किं वाऽसौ तत्र विद्यते ॥
विध्यर्थवादशब्दानां मिथोऽपेक्षापरिहृतात् ।
नास्त्येकवाक्यता धर्मं ग्रामाख्यं सम्भवेत् कुतः ॥
विध्यर्थवादो साक्षात् प्राशस्त्यपुरुषार्थयोः ।
तेनैकवाक्यता तस्माद् वादानां धर्ममानता ॥

SANSKRIT.

SECOND PAPER.

FIRST HALF.

Examiner—PANDIT PRABHATCHANDRA KABYATIRTHA, M.A.

Candidates are required to give their answers in their own words as far as practicable.

Candidates are permitted to attempt TWO questions only.

All the questions are of equal value.

Full marks—50.

1. (a) Explain fully and illustrate any two of the following rules :—

इलङ्घ्यम् । न वेति विभाषा । ख्यानेऽन्तरतमः । हसुषोः सामर्थ्यं । षष्ठी
ख्यानेयोगा । धातोस्तन्निमित्तस्येव ।

(b) Refer to the context and explain two of the following :—

अकृतव्यूहाः पाणिनीयाः । अर्थवद्गृह्ये नानर्थकस्य ग्रहणं । व्यवस्थित-
विभाषया गवाक्षः । अन्तवङ्गावेन पदान्तरेफस्य न विसर्गः । सामर्थ्यमिह
व्यपेक्षा ॥

(c) Write what you know on the euphonic combination (सन्धि) in three of the following :—

तच्छिवः । सङ्क्षम्भुः । पुंस्कोकिलः । गवाग्रं । पुना रमते । सुधुपास्यः ।

2. (a) Bring out clearly the meaning of any two of the following rules :—

अथर्वधामुरप्रत्ययः प्रातिपदिकम् । यस्मात् प्रत्ययविधिस्तद्वि-
प्रत्ययेऽङ्गम् । आद्यन्तवदेकस्मिन् । न लुभताऽङ्गस्य । शेषे लोपः ।

(b) Refer to the context and explain two of the following :—

“अग्रुथ” इति वक्तव्ये कृताऽऽत्वनिर्देशो जसृशसोर्विषये आत्वं
ज्ञापयति । यथोद्देशपक्षे षाष्ठौ परिभाषां प्रति श्रुत्वस्यासिद्धतयाऽन्तरङ्गाभावे
परिभाषाया अप्रवृत्तः । “आतः” इति योगविभागादघातोऽणकारलोपः
कुचित् । यथोत्तरं मुनीनां प्रामाण्यम् ।

(c) Cite the rules and show their applications in the formation of two of the following forms :—

कति । विश्वपौ । वारौणि । अतिल्लान् । असुमुयङ् । पुष्पाकम् ।

3. (a) Explain fully and illustrate any two of the following rules :—

यतश्च निर्द्धारणम् । अकथितं च । षष्ठौ शेषे । यस्य च भावेन
भावलक्षणम् । ध्रुवमपायेऽपाशनम् ।

(b) Discuss thoroughly two of the following :—

तमवग्रहणं किम् ? गङ्गायां घोषः । अर्थनिवन्धनेयं संज्ञा । उपपद-
विभक्तेः कारकविभक्तिर्वलीयसी । विवक्षातः कारकाणि भवन्ति ।

(c) Dwell at some length on the main grammatical points involved in any two of the following :—

प्रद्वीयतां दाशरथाय मैथिली । नरकस्य जिघ्राः । उत्पथेन पथे गच्छति ।
सर्पिषोऽपि स्यात् । मासमास्ते । शब्दानामनुशासन माचार्यस्य ।

4. (a) Explain fully and illustrate any two of the following rules :—

तत्पुरुषः समानाधिकरणः कर्मधारयः । समर्थः पदविधिः । अनेक-
मन्यपदार्थः । चार्थः द्वन्द्वः । तत्रोपपदं सप्तमीस्यम् ।

(b) Write a brief commentary, explanatory and critical, on each of the following:—

समासश्चतुर्थेति प्रायोवादः । गन्धस्येति तदेकान्तग्रहणम् ।

(c) Write short grammatical notes on two of the following:—

पद्मगन्धिः । बुद्धिमान्द्वयम् । खादतमोदता । शीतोष्णम् । पारस्करः । सर्वश्रेष्ठः ।

5. (a) Explain fully and illustrate any two of the following rules:—

तस्येदम् । तेन रक्तं रागात् । तद्विनाशासर्वविभक्तिः । वीतोद्युवचनान् । अघ्नो यत्स्वौ । द्विगोः । अजाद्यतष्टाप् ।

(b) Give both प्रकृति and प्रत्यय of three of the following, referring to the rules in each case:—

पौरुषेयः । स्त्रैयः । गुवतिः । सूरी । आर्थिका । दाधिकं । पाशुपतं ।

(c) Elucidate any two of the following:—

अकृतिग्रहणा जातिः । अत्र हि समासार्थसमाहारनिष्ठं स्वीत्वं । अकृतव्युहपरिभाषया सावुत्थितिर्भाभूत् । “सिद्धे यस्येति लोपेन किमर्थं ययतो ङितौ” ।

SECOND HALF.

Examiner—PANDIT SAKALNARAIN SARMA.

Candidates are required to give their answers in their own words as far as practicable.

Full marks—50.

(सिद्धान्तकौमुद्या उत्तरार्द्धे प्रश्नाः)

Answer any FIVE questions, which are all of equal value.

1. श्लिषा श्रपाऽनुबन्धेन निर्दिष्टं यद् गण्येन च । यत्रैकाज् ग्रहणञ्चैव पञ्चितानि न यद्भुक्तिः ।

अजन्तोऽकारवान् वायस्तास्यनिट् थलिवेडयम् । ऋदन्त इवृङ्नित्यानिट् क्राद्यनो लिटि सेङ् भवेत् । अनयोः काचिदेका कारिका सप्रमाणं सोदाहरणं व्याख्यायताम् ।

2. भवतादित्यत्र कथं न ङित्वेतिशास्त्रस्य प्रवृत्तिः ?

ऊखतुरित्यत्र कथं न वृत्त्यो दृश्यते ? द्वयोरेकस्यैवोत्तरमपेक्षितमस्ति ।

3. प्रहासि च मन्योपपदे मन्यते रुतम एकवच, सन्वसुधुनि चङ् परेऽनग्लोपे, दयायासञ्च, वृद्धः असनोः, ऊरुपधाया गोहः, र्लिङि, रङ्गेश, लिटिवयो यः, अत्र केषाञ्चित् चतुर्णां सूत्राणां सोदाहरणा अर्था लेखनीयाः ।

4. अक्षुशासीत्, कुहवाञ्चकार, दिदीये, विज्ञोष्यति, बभर्ज, औननत्, रुद्विषति, बोभूयते । वरीवर्ति । अत्रत्यानां केषाञ्चित् चतुर्णां प्रयोगाणां साधुत्वं कार्यविशेषप्रदर्शनपूर्वकं विधेयम् ।

5. देवदत्तः क्रिष्यति, विद्यामाददाति, गुरुः प्रतिष्ठति, पीठाहुतिष्ठते, स्वरान् विकरोति, शत्रून् पराजयति, शस्त्रं संदहोति, राम उपरमते, अत्र केषाञ्चित् त्रयाणां वाक्यानां सप्रमाणं संशोधनं कर्तव्यम् ।

6. अतिशयेन रधते । पुनः पुनर्गच्छति । ओज इवाचरति । विद्वांसमाचष्टे । पूर्वोक्तेषु विग्रहेषु कौटुशानि रूपाणि ?

7. पच् सञ्ज् रलै शो प्यायी एषां लुङि प्रथमपुरुषैकवचने कौटुशाः प्रयोगाः किञ्च तत्र प्रमाणासु ?

SANSKRIT.

THIRD PAPER.

FIRST HALF.

Examiner—DR. I. J. S. TARAPOREWALA, B.A., PH.D.

Candidates are to choose any FIVE questions, of which THE FIRST QUESTION must be one.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Full marks—70.

1. "The sentence is the unit of the language." Comment upon this statement. Discuss how every sentence may be reduced to a fundamental formula—*subject plus predicate*? How do extensions of the subject and predicate arise? What is the distinction between subject and object? 22

2. What are the main groups of the languages of the world? What position is occupied by the I.E. languages (a) geographically and (b) according to grammatical structure? 12

3. What do you understand by the terms: *Junggrammatiker*, *Fortunatov's law*, *Urgeschichte* and *Contamination*? 12

4. Trace the history of Grimm's Law of Sound Shifting, showing clearly how the dictum "phonetic laws have no exceptions" came to be established. What are the limitations of this dictum? 12

5. Trace the origin of *six* of the following sounds in Sanskrit: अ, 12
क, ग, ट, ब, घ, श, स, ह.

6. Give a short but clear account of the verbal system of Sanskrit and indicate how far the Vedic verb differs from the verb as used in Classical Literature. 12

7. What do you understand by *Analogy*? How far is it a determining factor in the growth of a language? Illustrate by means of examples. 12

8. Trace the history of the उपसर्ग in Sanskrit and compare with it the development of the preposition in English. 12

9. How does the pronominal declension differ from that of the other *subantas*? Give a short philological survey of the various forms used in the declension of *either* the interrogative pronoun *or* the pronoun अयम्. 12

" SECOND HALF.

Examiner—MAHAMAHOPADHYAYA GURUCHARAN TARKA-DARSANATIRTHA.

Candidates are required to give their answers in their own words as far as practicable.

Full marks—30.

पञ्चसु प्रश्नेषु त्रयाणामुत्तरं कार्यम् ।

1. बहुपदकबहुव्रीहि समासानङ्गीकारे को दोषः? 10
2. समासशक्तिवादः कया युक्तः कस्य सम्मतः? तत्र च जगदीशस्यसम्मतौ का युक्तिः? 10
3. नामार्थयोरभेदान्तरसम्बन्धेनान्वयानन्वययोः कुत्र का युक्तिः? 10
4. द्विगुक्कर्मधारययोस्तत्पुरुषाद्ययीभावयोश्च परस्परं कः प्रभेदः? 10
5. कः समासः सर्वपदप्रधानः? तस्य च किं जगदीशसम्मतं लक्षणं? कति च तस्य विभागाः? 10

SANSKRIT.

FOURTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiner—DR. P. D. GUNEH, PH.D.

Write an essay in English, discussing the question how far the known and published Sanskrit literature enables us to trace a continuous history of ancient India ? 50

Or,

Write an essay in English, discussing the question how far it is possible to ascertain the date of the Vedic literature with accuracy.

SECOND HALF.

Examiner—MAHAMAHOPADHYAYA DR. SATISCHANDRA VIDYABHUSHAN, M.A., PH.D.

Write an essay in English on *one only* of the following subjects:— 50

- (1) The development of Ancient Indian polity.
 - (2) The development of dramatic ideas, as illustrated by representative Sanskrit dramas.
 - (3) The development of ritualism from the Vedas down to the Brahmanic period.
 - (4) Vedic exegesis in ancient times.
 - (5) The origin and development of the doctrine of *Māyā* (मय).
 - (6) The nature of emancipation (मोक्ष) and the means for attaining it, as inculcated in the Yoga philosophy.
 - (7) The problem of sufferings (दुःख) and their remedy, as propounded respectively in the Sāṅkhya and Nyāya systems of philosophy.
 - (8) The *Rajatarangini* as a historical work.
 - (9) The development of the Brāhmi Lipi.
 - (10) The history of the reign of Aśoka, as derivable from his inscriptions.
-

SANSKRIT.

GROUP A.

FIFTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiner—MAHAMAHOPADHYAYA KALIPRASANNA BHATTACHARYYA, M.A.

THREE questions only are to be answered, of which one must be either Question 2 or Question 3.

1. उपमा कालिदासस्य भारवेरर्थगौरवम् ।

नेषधे पदलालित्यं माधे सन्ति त्रयो गुणाः ॥

(a) Illustrate the above by quotations from your texts. 6

(b) Who is the originator of the Science of Sanskrit polity 2

(जीतिशास्त्र) ? Name the principal authorities on the subject.

(c) What are the principal constituents of a kingdom (राज्य) and 7
of a circle of kings (मण्डल) ? Enumerate the chief attribute of a
विजिगीषु (king).

2. (1) तदा निस्स्वानतमां घनं घनं

ननाद तस्मिन् नितरां ततं ततं ।

अवापुरुषैः सुधिराणि राणिता

समानमानद्विमित्तयाध्वनौत् ॥

(2) पदद्वये ऽस्या नवयावरज्जना

जनेस्सदानौमुदनीयतापिता ।

चिराय पद्मो परिरभ्य जाग्रती

निशीथ विश्लिष्य नवा रविद्युतिः ॥

(a) Explain sloka (1) after the manner of मञ्जिनाथ. 6

(b) Explain the formation of निस्स्वानतमां and give the deriva- 4
tion of सुधिर and द्यता in sloka (1).

(c) Give, in Sanskrit or English, the substance of sloka (2). 6

(d) Point out the figures of speech (चक्षुष्कार) in slokas (1) and 4
(2).

3. (1) तदा तदङ्गस्य विभर्त्ति विभ्रमं
 विलेपनामोदमुचः स्फुरद्गुचः ।
 वरस्फुटत्काञ्चनकोतकौदलात्
 सुवर्णमभ्यस्यति सौरभं यदि ॥

(2) जितस्वदास्येन कलानिधिर्दधे
 द्विचन्द्रधीं सात्त्विकमायकायताम् ।
 तथापि जिग्ये युगपत् सखीयुग-
 प्रदर्शितादर्शब्रूभविष्णुना ॥

(a) Give, in Sanskrit, the substance of *either* of the above slokas. 6

(b) Give the different meanings of विभ्रम in sloka (1) and give 4
 derivations of निधि and सात्त्विकी in sloka (2). • •

(c) Translate into English *either* of the above slokas. 6

(d) Discuss, in detail, the figures of speech (अलङ्कार) occurring 4
 in slokas (1) and (2).

4. Explain, in Sanskrit, either A or B. 15

A.

स्यव्ययायासवधादिदोषं
 व्यपेक्षयावेष्टितसाधुकृत्यः ।
 कामात्तु पीडामधिकाञ्चिद्विच्छे-
 द्वात्रविग्रहं तत्प्रभवा हि दोषाः ॥
 अकालयुक्तसैन्यस्तु हन्यते कालयोधिना ।
 कोशिकेन हतज्योतिर्निशीथ इव वायसः ॥

B.

आत्मा बलं वा सुदृशी धनानि
 दृष्ट्वा भवन्तीह निषेधमात्रात् ।
 सुहृर्मुहुश्चाकुलितानि तानि
 तस्मान्न विद्वानतिविग्रही स्यात् ॥
 द्विद्रं कर्म च वित्तञ्च विजानाति निजो रिपुः ।
 दहत्यन्तर्गतश्चैव शुष्कदत्तमिवानलः ॥

5. Translate *any three* of the following slokas into English :—

15

- (1) सन्तप्यते प्रकृतिभिर्विरक्तप्रकृतिर्युधि ।
सुखाभियोष्यो भवति विषयेऽप्यतिसत्तिमान् ॥
- (2) अनेकचित्तमन्त्रस्तु द्वेष्यो भवति मन्त्रिणां ।
अनवस्थितचित्तत्वात् कार्यं तेः स उपेक्ष्यते ॥
- (3) नापराधं तु क्षमते प्रदण्डो धनहारकः ।
नृपो यदा तदा लोकः क्षुभ्यते भिद्यते परैः ॥
- (4) तद्वद्विनीतिनेपुण्यात् क्षमाशीलनृपस्य च ।
जायतेऽतो यस्तेतेव यावत् बुद्धिबलोदयम् ॥

SECOND HALF.

Examiner—PANDIT SIVAKUMAR BHATTACHARYYA.

Answer Question 5 and either of the Groups (A and B).

GROUP A.

1. (1) तत् सुराक्षि भवति स्थिते पुरः

कः क्रतुं यजतु राजलक्षणम् ।
उद्धृतो भवति कस्य वा मुखः
श्रीवराहमपह्वाय योग्यतां ॥

- (2) तस्य सांख्यपुरुषेण तुल्यता-

स्मिन्नतः स्वयमकुर्वतः क्रियाः ।
कर्तृता तदुपलम्भतोऽभवद्
वृत्तिभाजि करण यथर्त्विजि ॥

(a) Explain sloka (1) after the manner of Mallināth. 5

(b) Explain the formation of the base of सुराक्षि and state the 1+25 allusion in the second part of sloka (1).

(c) Translate sloka (2) into English. 5

(d) Expound the philosophical doctrine referred to in sloka (2). 2

(e) Give the different meanings of करण and account for the 1+1 augment सू in उपलब्ध.

2. उत्थानवीरः पुरुषो वाग्वीरानधितिष्ठति ।

उत्थानवीरान् वाग्वीरा रसयन्त उपासते ॥
कुरुते पञ्चरूपाणि कालयुक्तानि यः सदा ।
भवत्यग्निस्तथादित्यो मृत्युर्ब्रह्मवशोयसः ॥

- (a) Refer to the context and explain the above slokas in Sanskrit. 4
 (b) Translate the following slokas into English:— 4

ते मोहवशमापन्ना मनुजा मनुजर्षभ ।
 प्रतिपत्तिविमोहाच्च धर्मस्तेषामनीनश्च ॥
 नष्टायां प्रतिपत्तौ च मोहवशा नरास्तथा ।
 लोभस्य वशमापन्नाः सर्वे भरतवत्तम ॥

GROUP B.

3. (1) ध्येयनेकमपथे स्थितन्वियः
 स्तुत्यमुत्तममतीतवाक्पथम् ।
 आमनन्ति यमुपास्यमादरात्
 दूरवर्त्तिनमतीव योगिनः ॥
 (2) प्रेम तस्य न गुणेषु नाधिक
 नृस्य वेद गुणान्तरञ्च सः ।
 दिव्यसया तदपि पार्थिवोऽर्थिन-
 ङ्गुण्यगुण्य इति न व्यजोगच्छत् ॥

- (a) Refer to the context and give, in Sanskrit, the full purport of sloka (1). 5
 (b) Explain the formation of the base of *अपथे* in sloka (1), and 1+1 give its nominative singular form.
 (c) Translate into English sloka (2). 5
 (d) State and explain the *alankāras* in slokas (1) and (2). 3
 (e) Derive *प्रेम* and *अगुण्य* in sloka (2). 2

4. सम्यक्प्रणयतो दण्डं भूमिपस्य विशाम्यते ।
 युक्तस्य वा नास्त्यधर्म्मो धर्म्म एव हि शाश्वतः ॥
 कामकारेण दण्डं तु यः कुर्याद्विचक्षणः ।
 स इहाकीर्त्तिं संयुक्तो मृतो नरकमुच्छति ॥

- (a) Refer to the context and explain in Sanskrit the above extracts. 4
 (b) Translate into English:— 4

अशुभस्य यदा त्वहं द्वावंशावमुवर्त्तते ।
 कृष्णपक्ष्येव पृथिवी भवत्यर्द्धकला तथा ॥
 दण्डनीतिं परित्यज्य यदा कार्त्स्न्येन भूमिपः ।
 प्रजाः क्लिप्नात्ययोगेन प्रवर्त्तते तदा कलिः ॥

5. Translate *any one* of the following extracts into Sanskrit :—

(a) The Lord, who in the early morning surveys with his all-seeing eye the whole of Jambudvīpa, perceived what was happening in Anga land. At once he flew in the company of 500 disciples through the sky, and alighted in the courtyard of the merchant's house. All the inmates rejoiced to behold the master and his disciples. Attentively they listened to his preaching, and the whole family, along with many other people, became converts. After leaving Anuruddha in Anga to complete the work of conversion, the Buddha reverted to Srāvastī.

(b) No particular gods are referred to except Brahmā who is seated in the lotus. Poor Rishis jostle in company with serpents. The splendour of the vision would be equalled if a thousand suns shone simultaneously in the sky. In this transcendental blaze Arjuna sees innumerable arms, legs, mouths, bellies and eyes, and into the mouths warriors on either side, rushing and encountering death like moths rushing into burning fire. With strange forgetfulness Arjuna desires to see Krishna with the traditional crown and the other fixtures.

(c) Bhānuchandra continued to reside at Court. His pupil, Mahāmahopādhyaya Siddhichandra, composed a commentary on the latter half of the Kādambārī of Bāna. He had the reputation of being able to do 108 things at a time, and so secured from the then Emperor of Delhi the formal title of "Intelligent." From the colophon to the commentary on the Kādambārī by Siddhichandra we learn that his teacher, Bhānuchandra, had taught the Emperor of Delhi 1,000 names of the sun, and had obtained from the Emperor, in 1593, an order abolishing the tax on pilgrims to the holy hill of Śatrunjaya at Pālitāna, and directing that all the sacred places should be made over to Hīranijaya Śūri.

SANSKRIT.

GROUP A.

SIXTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Examiner—PANDIT MURALIDHAR BANERJEE, M.A.

Answer, in English or in Sanskrit, TWO ONLY of the five groups

क, ख, ग, घ, च.

क ।

1. कीदृशेषु दृश्यकाव्यभेदेषु वेणी-संहारः विक्रमोर्ध्वयोरन्तर्भावः ? कतिविधास्तादृश-काव्य-भेदाः ? के च ते ?

2. पद्मपुरमिति नगरं केनैव व्यपदेशेनाधुना परिचितम् ? केन वा पारा सिन्धुश्च ?

3. कोऽयं वेणी-संहार-कर्त्ता ? कदा वा स प्रादुरासीत् ? कथं वा तत् निर्णेतुं शक्यते ?

4. सङ्क्षेपतः समालोच्यतामिदं वेणी-संहार नाटकम् ।

5. सालङ्कारनिर्देशं विशदयन्तामधस्तातः श्लोकाः ।

(A) “पदे सन्दिरध एवास्मिन् दुःखमाप्ते युधिष्ठिरः ।

वत्सस्य निश्चिते तत्त्वे प्राणत्यागादहं सुखी ॥”

कथं युधिष्ठिरस्य सदुःखमासनम् ? किमत्र “तत्त्वम् ?” कोऽय-
“महं”-पदेनोपक्षिप्तः ? कथं वा तस्य सुखम् ?

(B) “तव पितरि पुरस्तादुन्नतानां स्थितेऽस्मिन्
स्थितिमिति च विभक्ता त्वय्यनाकम्प्य-धैर्यम् ।

अधिकतरमिदानीं राजते राज-लक्ष्मीः

हिमवति जलधौ च व्यस्ततोयेव गङ्गा ॥”

(C) “अपि चिन्तामणिश्चिन्ता-परिश्रममपेक्षते ।

इदं त्वचिन्तितं मन्ये कृतमाश्चर्य्यमार्य्यया ॥”

(D) “निसर्गस्य सधर्मस्य गोप्ता धर्मद्रुहो व्यसम् ।

अर्थो विरोधः शक्तेन जातो नः प्रतियोगिना ॥”

ख ।

कुत्रासीत् खलु पुरवसो राजधानी ? कथं पुरवसः पुरतः
मूर्च्छिताया उर्ध्वशाः प्रथमोपनयनम् ? तत्र मूर्च्छाचष्टौ किं
कवसदृश्यम् ?

2. केचिद् भण्णि “The Second and Third Acts are to some extent encumbrances, the introduction of the queen, her jealousy and anger and subsequent repentance help very little, if they do at all, to develop the plot. These are a superfluous addition, which can be expunged from the drama without in the least spoiling the general effect.”

इति विक्रमोर्ध्वशीं प्रति समालोचनकर्त्तुं शक्तिः श्रीमतां समी-
चीनतया प्रतिभाति न वा ? सकारणमुत्तरं लेख्यम् ।

3. समालोच्यताम् पुरवससञ्चरितम् ।

4. शकुन्तल-विक्रमोर्वशी-नाटकयोः कतरत् कथं तावत् प्राग्-
भावित्वेन प्रतिभाति श्रोमताम् ?

5. सालङ्कारनिर्देशं अर्थः प्रदर्शयतामधस्तनानाम् ।

- (A) “धैर्यं निधेहि हृदये हत यत् पापः
किं वा कदाचिदपि केनचिदन्वभावि ।
सारङ्ग-संहृतिविधाविभ-कुम्भ-कूट-
कुट्टाक-पाणि-कुलिशस्य हरः प्रमादः ॥”
- (B) “प्रभापल्लवितेनासौ करोति मणिना खगः ।
अशोकस्तत्र केनेव दिङ्मुखस्यावतंसकम् ॥”
- (C) “ज्वलनः शोकजन्मा मां श्रयं दहति दुःखः ।
समानायां विपत्तौ मे वरं संश्रयितुं रणे ॥”
- (D) “अस्माभिरेव पाल्यस्य प्रशस्तत्वात् प्रियस्य नः ।
अस्मद्-सुचे पुराणस्य पञ्चाचारस्य विप्रवसु ॥”

ग ।

1. सादृश्येन समालोच्यतां तावत् कालिदास-भवभूति-पादानां
काव्यनिर्माणनैपुण्यम् ।

2. कौदुशि रसे विषये वा तयोः कविवर्ययोः कौदुशं
नैपुण्यम् ?

3. वर्णितमासीत् राम-चरितं तावत् कालिदासेन श्रीकण्ठेन
च, समालोच्यतां तत् तीक्ष्ण-धौभिः श्रीमद्भिः ।

4. केन रामायणसुपजीव्य दृश्यकाव्यं प्राक् प्रणीतमासीत् ?
कथं तदवगम्यते ?

5. सालङ्कारनिर्देशं तात्पर्यं विशदीक्रियताम्,—

- (A) “सितांशुका मङ्गल-मात्र-भूषणा
पवित्रदूर्वाङ्कुर-लाङ्घितालका ।
व्रतापदेशोऽभक्त-गर्वदृष्टिना
मयि प्रसन्ना वपुषेव लक्ष्यते ॥”
- (B) “कर्णालिङ्गनशायी वा पार्श्वप्राण-हरोऽपि वा ।
अनिवारित-सम्पातेरयमात्माश्रुत्वारिभिः ॥”

- (C) “अन्योन्याहात्म्यविशेषैरविदितात्मनोः ।
विराजते विरोधोऽपि नाम खेहे तु का कथा ॥”
- (D) “वह्निः सर्वाकारप्रवणरमणीयं व्यवहरन्
पराभूह-स्थानान्यपि तनुतराणि स्थगयति ।
जनं विद्वानेकः सफलमत्तिसन्धाय कपटैः
तटस्थः स्नानार्थान् घटयति च मोनं च भजते ॥”

घ ।

1. प्राक् वाल्मीकिना पद्यमयं अव्यमहाकाव्यं रामायणं विरचितम्, कालिदासेन पुनस्तेनैव महर्षिप्रदर्शितेन पद्या अव्यत्नेन रघुवंशं निर्मितं, परन्तु भवभूतिना तत् महर्षिमहाकवितुल्यं वर्ण-परिच्युतं दृश्यतया रामचरितमुपनिबद्धम् । अत्र श्रीमद्भिः किं कारण-मनुमीयते ? कथं तेन पद्येन नोपनिबद्धम् ?
2. सोदामिनी श्रीपर्वते निवसतीति श्रूयते । कतमस्मिन् प्रदेशे अयं श्रीपर्वतः ? कथं वा तत्र तस्याः निवासः ?
3. मालतीमाधवस्य तृतीयेऽङ्के प्रशुशालातो व्याघ्रस्य विनिर्गमनं कथमुपकल्पितम् ? किं वा जातमुपकृतं तेन नाटकीयवस्तुनः ? तदनुपादाने वा का क्षतिः ? कोऽयमस्यादर्शः ?
4. केयं मदयन्तिका ? कथं वा कविना व्याघ्रेणाक्रान्तत्वेन वर्णिता ? कामन्दकी-निर्म्माणस्य किं बीजम् ?
5. प्रभवति निजस्य कन्यका-जनस्य महाराज इति धूरिवसोरुक्तिः शालङ्कार-समर्थनं व्याख्यायताम् ।
6. एकमेव रामचरितमुपजीव्य कथं ग्रन्थद्वयं निर्मितं भवभूतिना ? कथं वा वर्णनायां समासभूयस्त्वमङ्गीकृतं तेन ?

च ।

1. संस्कृतभाषायां दृश्यअव्ययोः किंविधं नाम काव्यमादौ निर्मितमासीत् ? अत्र का श्रीमतां युक्तिः ? स्वीकृते च अव्यकाव्यस्य अग्रिमत्वे तेनैव च काव्यामोदभोग-सिद्धौ कथं पुनर्दृश्य-काव्य-निर्म्माणायाः अष्टांशानेः कविभिः क्लीकृतः ?

2. यथा मालविकाग्निमित्रे तथैव मालतीमाधवे बौद्धसङ्गा-
सिनोनां सद्विरुपलभ्यते । दृश्यते च शुद्धान्तेषु तावामतिप्रभावः ।
किमत्र बीजम् ? कथं वा वैदिकधर्मप्रधानेषु राज-संसारेषु बौद्धानां
प्रसारः सङ्गच्छते ?

3. समालोच्यतामौशीनरीचरितम् ।

4. वीरोत्तरचरित-मालतीमाधवेषु नाटकेषु सयुक्तिकं कवे-
निर्माणापौर्वापर्यं तावदवधार्यताम् । निरूप्यताञ्च,—

“यद्देहाध्ययनं तथोपनिषदां साङ्ख्यस्य योगस्य च”—इति
श्लोकनिर्माणे कवेरभिप्रायः ।

5. किं खलु “पङ्क्तिपावन”—लक्षणम् ? यस्य ज्ञान-
निधिर्गुणः” रित्यत्र कोऽयं ज्ञान-निधिः ?

6. आकुन्तले ग्रन्थकृत् परोचितो—“कालिदास-ग्रथितवस्तुनेति”
“कालिदास”—शब्द-मात्रेण कवेरुल्लेखः, भवभूतिना पुनर्धौरोत्तरचरित-
मालतीमाधवादिषु नानाविशेषणविज्जितस्तावदात्मपरिचयः प्रदत्तः ।
किमत्र वक्तव्यं ग्रीमताम् ? विचिन्त्य विशदयताम् ।

SECOND HALF.

Examiner—PANDIT RAJENDRANATH VIDYABHUSHAN.

Full marks—50.

1. What is the source of the story of the Mrichchakatika ? Was 8
there any work to serve as its model ? If so, how far is the author
of the Mrichchakatika indebted to it for the plot and characters of
the play, and wherein is he original ?

2. Express the purport of any two of the following extracts in 8
Sanskrit, indicating the context :—

(a) एतेन मापयति भिक्षुषु कर्मसारां

मेतेन मोचयति भूषण संप्रयोगान् ।

उद्घाटको भवति यन्त्रदृके कपाटे

दृष्टस्य कीटभुजगैः परिवेष्टनं च ॥

(b) एतत्तद्वृत्तराष्ट्रचक्रसदृशं मेघान्धकारं नभो

दृष्टो गर्जति चातिदर्पितप्रलो दुर्योधनो वा शिखी ।

अक्षद्यूतजितो युधिष्ठिर इवाध्वानं गतः कोकिलो

हंसाः संप्रति पाण्डवा इव वनादज्ञातचर्यां गताः ॥

(c) दाक्षिण्योदकवाहिनी विगलिता याता स्वदेशं रति-

हर्षासंज्ञतमूषण्ये सुवदने क्रीडारसोद्भाविनि ।

हा झोखन्यनदि प्रहासपुलिने हा मादृशामाश्रये

हा हा नश्यति मन्मथस्य विपत्तिः सोभाग्यपण्याकरः ॥

3. Turn the following into Sanskrit, clearing the context:—

4

अवि अ पेक्व पेक्व ।

कक्कालुका गोच्छ डलित वेष्ठा

आको अ शुक्ले तलिदे हु मंथे ।

भस्ते अ सेमन्ति अ लत्ति शिष्टे

लीये अ वेले य हु होद पूदी ॥

4. Give some examples from the above extracts of the changes that conjoined consonants in Sanskrit words undergo when they are turned into Prakrit words. Quote rules from Vararuchi according to which these changes take place.

5

5. Translate into Sanskrit *any one* of the following extracts:—

25

(a) Then she, with the face of the full moon, saw the goddess of famous beauty, Sri, on the top of Mount Himavat, reposing on a lotus in the lotus lake, anointed with the water from the strong and large trunks of the guardian elephants. She sat on a lofty throne. Her firmly-placed feet were like the leaves of the lotus, and her fingers and toes soft and excellent; her round and well-formed legs were adorned with Kuruvindāvarta, and her knees with dimples. Her fleshy thighs resembled the proboscis of an excellent elephant, and her lovely broad hips were encircled by a golden zone. Her large and beautiful belly was adorned by a circular navel. Her waist, which contained the three folds, could be encompassed with one hand. On all parts of her body shone ornaments and trinkets, composed of many jewels and precious stones, yellow and red gold. The united beauties and charms of these ornaments were only subservient to the loveliness of her face. Her lovely eyes were large and pure like the waterlily.

(b) When in due time the god of the day had risen and by the blows of his hands the darkness was driven away, while the inhabited world was, as it were, dipped in saffron by the morning sun, the Kshatriya Siddhārtha rose from his bed, descended from footstool, went to the hall for gymnastic exercises, and entered it. There he applied himself to many wholesome exercises, jumped, wrestled, fenced, and fought till he got thoroughly tired: then he was anointed with hundredfold and thousandfold refined different kinds of oil, which nourished, beautified, invigorated, exhilarated, strengthened, and increased all senses and limbs. On an oiled hide he was shampooed by clever men with soft and tender palms of the hands and soles of the feet, who were well acquainted with the best qualities of the practices of anointing, kneading, and stretching; well trained skilful, excellent, expert, intelligent and never tiring. When by this fourfold agreeable treatment of the body the king's bones, flesh, skin, and hair had been benefited, and his fatigues banished, he left the hall for gymnastic exercises, and entered the bathing house.

SANSKRIT.

GROUP A.

SEVENTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiner—PANDIT ASUTOSH SASTRI, M.A.

1 (क) सा रघवता विहता नवका विलसन्ति चरति नो कं कः । 17

सरसीव कीर्त्तिशेषं गतवति भुवि विक्रमादित्ये ॥

(ख) पितृकार्यं वृषोत्सर्गः शशिनः कन्यातुलारोहणं योगे
शूलव्याघातचिन्ता दानच्छेदः करिकपोलेषु दक्षिणवामकरणं दिङ्मिश्रये
शरमेदो दधिषु ।

(ग) विशङ्कुरिव न क्षत्रपयस्कलितः शङ्करोऽपि न विषादी
पात्रकोऽपि न कृष्णवर्त्मप्रयाशोऽपि न दहनो नान्तक इवाकस्मादप-
हृतजीवनो न राहुरिव मित्रमण्डलग्रहणवद्विस्तम्बिः ।

(घ) पुष्करवा ब्राह्मणधनतृष्णाया विननाश । नहुषः परं कलत्र-
दोहदौ महाभुजङ्ग आसीत् । ययातिर्विहितब्राह्मणीपाणिग्रहणः
पपात । सुहृन्मः स्त्रीमय इवाभवत् ।

(a) Refer to the context and explain in Sanskrit any two of ex-
tracts (क), (ख) and (ग).

(b) Narrate very briefly the stories alluded to in (घ).

(c) Explain the Rhetorical Figures in (क), (ख) and (ग) of the
above extracts.

2. Translate, into English, any two of the following extracts, 17
writing short comments on such words in (1) as suggests double
entendre:—

(1) राघवः परिहरन्नपि जनकभुवं जनकभुवा सह वनं विवेश ।
भरतो रामे दर्शितभक्तिरपि रामे विराममकरोत् । नलस्य इमयात्या
मिलितस्यापि पुनर्भूपरिग्रहो जातः ।

(2) षापसारमिव फेनेः ससुरामोह इव वेलावकुलगत्यैः
सरोषमिव गर्जितैः सखेदमिव निःश्वसितैः सधूकुटीभङ्गमिव तरङ्गैः
साखानस्तम्भमिव रामसेतुना जलनिधिमपश्यत् ।

(3) विरहिण्यां हृदयं विहारयितुं करपत्रमिव कुसुमायुधश्च
क्रकचच्छ्वसमशोभत । जलददासि लोलतद्विस्तृताकरपत्रदारिते
पथनवेगनिर्धुताश्चूर्णचया इव जलरेणवो बभूवुः ।

(a) Show, by quotation or reference, that the similes in the underlined parts of the above extracts are also found in the works of poets one of whom preceded, and others followed, Subandhu.

Answer ONLY ONE of the following questions.

16

3. Give, in your own words (in Sanskrit), the bare outline of the story of Subandhu's Vasavadatta, with a critical estimate (in English) of its action, style and other remarkable characteristics.

4. Write a short thesis in English on the following remarks:—

“कवीनामगलद्वर्णो नूनं वासवदत्तया ।”

and

“सुखसुवर्णभट्टश्च कविराज इति त्रयः ।

वक्रोक्तिमार्गनिपुणाश्चतुर्णो विद्यते न वा ॥”

5. Mention some plays and poems of which वासवदत्ता is either the name of the heroine or a principal character. In what points can the story of a play of poet Bhāsa and that of Subandhu's Vāsavadattā be compared? Is there any reason for presuming that Subandhu borrowed some of his ideas from Bhāsa?

SECOND HALF.

Examiner—PĀNDIT BHAGABATKUMAR SHASTRI, M.A.

1. Translate into English:—

25

तस्य च शिखरिणः स्वभावरमणीयेषु सर्वतः स्ववकित्तिलक-
चम्पकाशोकवकुलेषु कलहायमानमत्तपिककुलालापवाचालविकचसूत-
मालेषु परिमलमिलितमधुकरीनिकराम्बकारितकोरकित सरससहकारेषु
रत्नाविज सप्तद्वयैकलप्रबालजटिलितराजतालीमूलजटाजालकेषु घटित-
सेतुवानरविकीर्णगिरिकूटकुटिलितान्तरालमार्गध्वितस्ततः सखीस्नेह-
सूराकृष्टमनसा विजठया विनोदितदयितविरहतामसैषिलीकेष्णेकशः
श्रीङ्गनिमित्तमागतया प्रधाननक्तंचरीभिः सह पादचारेण विशरण्या

लतामन्दिरेषु मन्दोदर्यां सविभ्रमावंचितविकचमन्दारेषु सेतुशिखरोत्त-
सङ्गलवङ्गतस्तलासीनकिन्नरमियुनगीयमानरामचन्द्रचरितान्नुतेषु प्रभा-
न्तनक्तज्जरोपद्रवतथा सज्जरङ्गिरचक्रितैः समीपाश्रमनिवासिभिस्ताप-
सकुमारकैः प्रकटितविभौषणसोराज्येषु... .. ज्ञानकीवैमुख्यदुःखक्षाम-
दशकण्ठातिवाहितोत्कण्ठेषु तटवलेषु ... निर्भरेषु ... दशकण्ठकृद्-
निर्हतेन दशरथात्मजेन स्वधा जटायुषे निर्वर्तितः प्रथमो निवा-
पाञ्चलिः ।

2. Annotate in English any five of the following:—

15

(a) मुख्योपहाराद्वरखोद्यतद्रविद्विप्रार्थमानामर्तुकम् ।

(b) तुषारपरिकरितकरकशिशिरीक्रियमाणोदसिधति ।

(c) अष्टभाषित्यक्तकालाय सकुम्भवक्षुणि भानुमण्डले भयङ्कर-
कवचकायव्याजेन कोऽपि पार्थिवप्राणितार्थी पुरुषोपहारमिवोपजहार ।

(d) भूभृद्वातुगर्भकुम्भधारिषु विविधसरःसरित्तीर्थाभिमुखेषु
प्रस्थितेषु वनकरिकुलेषु ।

(e) बहुसुतपटावगुण्डनां रञ्जितरङ्गां जनङ्गमानामिव वंशवाद्या
मनार्थ्यां श्रियं त्यक्तमभिलषति मे मनः ।

(f) गौडाधिपमपहाय कस्तादृशं महापुरुषं ... मुक्तशस्त्रं
कलशयोनिमिव कृष्णवर्त्मप्रसूतिः ईदृशेन सर्वलोकविगर्हितेन सुलुना
शमयेदार्यम् ?

(g) तेजस्विनः सकलाननवाप्य पयोराशिसङ्कल्य कुतो निवृत्ति
रुदमणः ?

Attempt any ONE of the following three questions.

3. Fully trace the course of events that led to the succession of Harsha on the throne of his father. 10

4. Sum up in your own words in Sanskrit the conversation between Harsha and his general on the eve of the great expedition. 10

5. Fully describe in English the remedies, both human and super-human, which were adopted to avert the calamity of Prabhakara Vardhana's death. 10

SANSKRIT.

GROUP A

EIGHTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiner—MAHAMAHOPADHYAYA PRAMATHANATH TARKABHUSHAN.

1. शब्दार्थरसदोषेषु ये काव्यप्रकाशकृता प्रदर्शिताः सरस्वती- 15
कण्ठाभरणकृता न प्रदर्शिताः, ये च सरस्वतीकण्ठाभरणकृता प्रदर्शिता
न प्रदर्शिताः काव्यप्रकाशकृता ते सर्वे सोऽशहरणापन्यासं नामतो
निर्दिश्याः ।

अथवा—

काव्यस्वरूपनिर्णये साहित्यदर्पणकृता काव्यप्रकाशकृत् प्रदर्शित-
काव्यलक्षणं याभिर्युक्तिभिः खण्डितं ताः साकल्येन प्रतिपाद्यान्ताम्,
साहित्यदर्पणकृत्समुद्भविताः काव्यप्रकाशोक्तकाव्यलक्षणखण्डनपरा
युक्तयः सर्वथा समीचीना न वा ? समीचीनत्वपक्षे न किञ्चिद्वक्तव्यं
असमीचीनत्वे तु कारणं प्रतिपादनीयम् ।

2. भोजराजमते आद्यस्यैव रसत्वं न वीरान्नुतादीनामिति 5
एकावलीकारेणोक्तं तत्र वीरादीनामरसत्वे आद्यस्य तु रसत्वे अनुकूला
युक्तिः कौटुशी भवेत् ।

अथवा—

सङ्केतितस्तुर्भेदो जात्यादिर्जातिरेव वा इति कारिकाद्वै-
याख्यानवसरे सर्वेषां शब्दानां जातिरेव प्रवृत्तिनिमित्तमितिमतं
काव्यप्रकाशकारेण यथा समर्थितं तथा प्रतिपाद्यान्ताम् ।

3. का नाम शाब्दी व्यञ्जना का वा आर्थी अनयोऽदाहरणे 10
पदशङ्कनीये ।

अथवा—

प्रकृतिकदेशस्य रसव्यञ्जकत्वं उदाहरणोपन्यासेन प्रतिपादनीयं

4. शब्दवृद्धाभिधेयांश्च प्रत्यक्षेणात्र पश्यति ।

10

श्रोतुश्च प्रतिपन्नस्वमनुमानेन चेष्टया ॥

अन्यथानुपपत्त्या तु बोधेच्छक्तिं ह्ययात्मिकाम् ।

अर्थापत्तयावबोधेत सम्बन्धं त्रिप्रमाणकम् ॥

इति श्लोकद्वयं प्रकृतसङ्गतिप्रदर्शनपुरस्सरं काव्यप्रकाशकृतद्वयदिशा व्याख्येयम् ।

अथवा—

“स च न कार्यः, विभावादिविनाशेऽपि तस्य सम्भवप्रसङ्गात्, नापि ज्ञाप्यः, सिद्धस्य तस्यासम्भवात्, अपि विभावादिभिर्य-
ज्ज्ञितसर्व्वणीयः” । इति सन्दर्भः प्रकृतसङ्गतिप्रदर्शनेन वैशद्येन व्याख्यायताम् ।

5. कल्याणानां त्वमसि महर्षि भाजनं विश्वभूते

10

• धुर्यां लक्ष्मीमथ मयि भृशं धेहि देव प्रसीद ।

यद्वयत् पापं प्रतिजहि जगन्नाथ नमस्य तन्मे

भद्रं भद्रं वितर भगवन् भूयसे मङ्गलाय । इति

अस्मिन् श्लोके यत्पदद्वयं वर्तते, तत्पदन्तु एकमेव इति एकस्य यत्पदस्य साकाङ्क्षत्वेन कश्चिद्दोषः अस्ति न वा अस्ति चेत् किं तस्य नाम् ? नास्ति चेत् कथं इति स्फुटीकरणीयम् ।

अथवा—

सग्नं रागावृताङ्गया सुदृढमिह ययैवासियष्टगारिकण्डे

मातङ्गानामपीहोपरिपरपुरुषैर्यां च दृष्टापतन्तौ ।

तत्पक्षतोऽयं न किञ्चिद् गणयति विदितं तेऽस्तु तेनास्ति दत्ता

मृत्युभ्यः श्रोनियोगाद् गदितुमिति गते वाम्बुधिं यस्य कीर्तिः ।

इति अत्र श्लोके कस्मिन्नंशे को दोषः कथं वर्तते इति वैशद्येन निरूपणीयम् ।

SECOND HALF.

Examiner—RAI RAJENDRACHANDRA SASTRI, BAHADUR, M.A.

Answer any THREE of the first four questions, and also Questions 5 and 6.

1. Fully discuss as to whether all kinds of श्लेष are to be regarded 6
as अर्थालङ्कार and whether a श्लेष is a bar (बाधक) to other figures of
speech. Give the views of Mammata, Vidyadhar and Visvanath on
the subject.

2. Define श्लेष and differentiate it from समासोक्ति तुल्ययोनिता and 6
व्यङ्ग्यनि.

Or,

Define काव्यलिङ्ग and differentiate it from अर्थान्तरन्यास अनुमान
and दृष्टान्त ।

3. Explain and illustrate :—

6

“यदोपमानशब्दानां गौणवृत्तिव्यपाश्रयात् ।

उपमेये भवेद्वृत्तिस्तदा तद्रूपकं विदुः ॥”

Or,

Explain and illustrate some of the figures of speech which involve
either आरोप or विरोध.

4. Mention the faults which vitiate a रस and state whether there
is any in the following :—

क्षिप्तो हस्तावलग्नः प्रसभमभिहतोऽप्याददानोऽशुकान्तम्
शृङ्खलुं केशेष्वपास्तश्चरणिपतितो नेक्षितः सम्भ्रमेण ।
आलिङ्गन् योऽव्रथतस्त्रिपुरयुवतिभिः साशुनेत्रोत्पलाभिः
कामौवाद्वापराधः स दृष्टुं दुरितं शाम्भवो वः शराग्निः ॥

5. State the figures of speech in the following, giving short reasons 7
for your answer :—

(i) अरत्नालोकसंहार्यमवाय्य सूर्यरश्मिभिः ।

दृष्टिरोधकरं पुंसां यौवनप्रभवं तमः ।

(ii) न मालतीदामविमर्दयोग्यं न प्रेम नव्यं सहते उपराधान् ।

ज्ञानाऽपि न ज्ञायति केसरस्त्रगुं देवी न खण्डप्रणया
कर्णज्जित् ॥

(iii) द्वीपेषु कर्पूरपरागपाण्डुव्यासाद्य लीलापरिवर्तनानि ।

आश्रया तुषाराद्रितटे सुठन्तः शीतेन खिन्ना स्तुरगास्तदीयाः ॥

- (iv) नास्य प्रसरो जलेऽपि कृतावासस्य कोशे रुचिः
दण्डे कर्कशता मुखे च सृद्धता मित्रे महान् प्रश्रयः ।
आमूलं गुणसंग्रहव्यसनिता द्वेषश्च दोषाकरे
यस्यैषा स्थितिर्भुजस्य वसतिर्युक्तैव तत्र श्रियः ॥

6. Translate into English :—

25

- (i) कुन्तलेश्वरभवत्कृपावशात् तत्र राज्यमपि दातुमुत्सुकः ।
कः प्रसन्नमनसा यशोऽर्थिनां श्रीसमर्पणविधौ परिश्रमः ॥
- (ii) प्रादिष्टोत् कति न सान्त्वनक्रमांस्तत् समीप मनिशं विशां
पतिः ।
एकमप्यनयवायुलङ्घितो नाग्रहीष्ट कुलकण्ठकस्तु सः ॥
- (iii) वैशसस्य कथमस्य, शान्तिरित्येष यावदनुकम्पया स्थितः ।
तावदद्भुतभुजावलेपतः कृष्णवेणितटमाजगाम सः ।
- (iv) भूपसेनमपह्वाय तच्चभूमाश्रिताः कति न मण्डलेश्वराः ।
जायते मतिविपर्ययो नृणां प्रायशः परिभवे भविष्यति ॥
- (v) वीक्ष्य स द्विपघटाः कटस्थली निलुठद्बहल दान निर्भराः ।
वाजिनश्च चटुलानमन्यत ज्येष्ठयोधन विधावकुण्ठताम् ।

SANSKRIT.

GROUP B.

FIFTH PAPER.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

FIRST HALF.

Examiner—PANDIT N. S. ANANTAKRISHNA SASTRI.

Answer THREE questions, of which No. 5 must be one.

1. (a) पदान्तरसमभिध्यादृतानि पदानि निरुक्तस्य विषयाः ? उत 10
केवलानि । तत्रापि लौकिकानि वैदिकानि वेति विमुच्यताम् ।
- (b) निरुक्तमिति पदं अन्यपरं कथमिति निरुच्यताम् । 6

2. (a) मन्त्रार्थवत्त्वे निरुक्ताभिमतं असाधारणं कारणं निर्दिश्य 10
तन्निरूपणस्य कः प्रसङ्ग इति निरूपयताम् ।
(b) मीमांसाशास्त्रेण निरुक्तस्य कियानुपकारः ? 6
3. (a) नाङ्गामाख्यातजत्वनियमतदनियमपक्षयोरुपपत्तीर्विलिख्य 12
पक्षद्वयेऽपि प्रयोजनभेदो निरूपयताम् ।
(b) निरुक्तानुसारिणो लांकिकप्रयोगस्य साधुत्वासाधुत्वे विचार्य 4
निर्णीयताम् ।
4. (a) निरुक्तं व्याकरणैकदेशो वा पृथगेव विद्यास्थानं वेति सोप- 8
पत्तिकं विचार्यताम् ।
(b) उपमालक्षणं निरुक्तोक्तं निरूप्य तदर्थो निपाता अन्ये च 8
सोदाहरणं त्रयः संयुज्यन्ताम् ।
5. (a) दैवतलक्षणं दैवतमन्त्रभेदान् तेषामुदाहरणानि स्तुतिमन्त्राणां 8
आशीर्षमन्त्राणां च तात्पर्यं च निरूपयन्तु ।
(b) अर्धालिखितानां पदानां निर्वचनमुपपाद्यार्थो वर्णयताम् । 10
गौः व्योम, सुनृतावरी हरस्वत्यः स्तनः शृङ्गाणि स्वाहा
बुद्धिभिः ।

SECOND HALF.

Examiner—PANDIT SITARAM SASTRI.

1. अधस्तनानां त्रयाणामन्यतमं द्वितयं व्याख्येयम् ? 10
(१) कन्दोद्याकरणादिभिः प्रातिशाख्यस्यान्यथासिद्धिर्भवति न
वा ? न चेत् कुतः ? प्रदर्श्य च प्रातिशाख्यपदस्यार्थव्युत्पत्ती ।
(२) उदात्तादिपरस्परशब्दस्य व्युत्पत्तिः कौदृशी ? कश्च तदर्थः ?
कतिविधश्चेति सोदाहरणं प्रदर्शनीयम् ।
(३) क्रमस्य स्वरूपं प्रयोजनं च प्रदर्श्यम् ।
'नरा च शंसं देव्यं च धर्परि', 'नारविध्यदिलीनिशस्य दल्हा',
'परीतोषिञ्चता सुतम्' इत्येतेषु पदविभागप्रदर्शनपुरसरा क्रमप्रवृत्तिः,
तद्वैतवश्च सन्दर्शनीयाः ।
2. प्रशिष्टोद्गाहपदवृत्तीनामुदाहरणानि प्रदर्श्य अम्बूकृतशून- 10
निरुक्तप्रस्तानां स्वरूपाणि विवरणीयानि ।

लकारहकारयोश्च के दोषाः सम्भवन्ति, कथं चेति विशदं
विलेखनीयम् ?

नूङ्त्वा, वीरैः स्याम, अपि धावनिघीष्ट, अजनिष्ट द्विषः,
तंगूधया स्वर्णरे ।

एषु के सन्धयः कैः सूत्रैः प्रवर्तन्ते ?

3. कणयोरन्यतरस्य व्याख्यानं कार्यम् ।

(क) प्रातिशाख्योक्ताध्ययनप्रकारः संक्षेपेण विलेखनीयः ?

10

प्रश्नः कः ? सूक्ते प्रश्नातिरिक्तैकद्वयाद्यवशेषे तत्र का प्रति-
पत्तिः ?

‘एका च सूक्तम्’ इत्युच्यते का सा एककृ ?

स्थानप्रयत्नयोः साम्येऽपि वर्णविवेकभासमानो विशेषः किं कृतः ?
वर्णविशेषत्वकारका चेतवः के कति चेति प्रदर्श्यम् ।

(ख) ‘जात्यवदा तथा वाऽन्तौ तनू शचीति पूर्वयोः’ ।

‘तस्योदात्तरोदात्तादहं मात्राऽहं मेव वा’ ॥

सूत्रद्वितयं सनिदर्शनं सन्ध्याव्याख्येयम् ।

उत्तरस्मिन्नेव वा शब्दयोः स्वरस्यमपि प्रदर्श्यम् ।

उत्तरसू । विषये मतभेदश्चेत्तोऽपि प्रदर्शनीयः ।

स्वरितोत्तरेषामनुदात्तानां विषये को मतभेदः ?

4. कृन्तसां प्रयोजने प्राच्यनव्ययोः को मतविभेदः ?

10

कृन्तः पदव्युत्पादनमपि विभिन्नमतप्रदर्शनपूर्वं करणीयम् ।
विवेचनीये च युक्तयुक्तत्वे उभयत्र ।

यत्तेरावश्यकत्वं संसाध्य, तस्य दुष्टत्वस्थलानि द्वित्राख्यदा-
हार्थाणि ।

पूर्वान्तवत्स्वरसन्धौ क्वचिदेव परादिवत् ।

द्रष्टव्यो यतिचिन्तायां यथादेशः परादिवत् ॥

अ । ख्येयघा कारिका उदाहरणप्रदर्शनपुगस्वरम् ।

सामगायत्रीप्राजापत्योष्णिगासुरवृहतीनां परस्परविभेदं
संप्रदर्श्य, गायत्र्यादिच्छन्दसामाख्यादिनामविषयोऽभिप्रायः स्फुट-
मुपपाद्यः ।

5. (१) प्रस्तारादिप्रत्ययानामुपयोगं प्रतिपाद्य पिङ्गलाचार्यमतेन 10
अक्षरः प्रस्तारः प्रस्तार्यो लक्षणसमन्वयनपूर्वम् ।

पञ्चाक्षरे प्रस्तारे ऽ । । ऽ ऽ इदं वृत्तं कतिथम् ?

(२) 'विपुलायुलः सप्तमः 'पण्या पूर्वश्चेत्तृतीयः' 'धरो वृहती
याक्य' 'विपरीतप्रतिष्ठा' ।

व्याख्येयानि सूत्राख्येयानि ।

नागी, आस्तापङ्क्तिः, पुटः, इन्द्रवज्रा, दण्डकः एतेषां
लक्षणानि प्रदर्श्य समन्वेयानि ।

(३) पिङ्गलाचार्योऽयं मनुष्यो वा आख्यायिकाऽनुरोधेन सर्पो
वा ? यद्ययं मनुष्य आख्यायिकायाः कोपपत्तिः ? 'सजयति पिङ्गल-
नागः' इति नागेत्युक्तिः कथं चोपपद्यते ? सर्पश्चेच्छब्दोऽग्र्यविरचयि-
तृताया उपपत्तिर्वाच्या ।

एतेषु त्रिषु अन्यतमं द्वितयं व्याख्येयम् ।

SANSKRIT.

GROUP B.

SIXTH PAPER.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

FIRST HALF.

Examiner—MAHAMAHOPADHYAYA LAKSHMAN SHASTRI.

Answer any THREE questions, of which No. 5 must be one.

1. (a) चतुःसंख्यो ज्योतिष्टोमः

15

गवामयनम्

आदित्यानमयनम्

अङ्गिरसामयनम्

द्वादशाङ्गः

एतेषां स्वरूपं निरूप्यताम् ।

(b) वीक्षणीयातिथेष्टरोः स्वरूपं निरूप्यताम् ।

2. (a) अनुवष्टकारः अनुवाहः अन्तर्यामिग्रहः अपोनग्रीयाः
अप्नोर्यामः आगूःकरणम् उपवसथः निर्वापः निष्कासः प्रयाजाः सुत्या
एतेषामर्थाः प्रदर्शयन्ताम् ।

15

(b) प्रथमपञ्चिकार्थः सङ्क्षेपेण प्रदर्शयन्ताम् । सोमो वै राजा
गन्धर्वेष्वसीत् देवाश्च ऋषयश्चाऽभ्यध्यायन् ।

3. (a) कथमयमस्मान् सोमो राजा गच्छदिति का वागब्रवीत्
स्वीकामा वै गन्धर्वा मयैव स्त्रिया भूतया पणध्वमति नेति देवा
अब्रुवन् कथं वयं त्वदृते स्यामेति साऽब्रवीत् क्रीणीतैव यर्हि वाव
वो मयार्थो भवितता तर्ह्येव वोऽहं पुनरागन्ताऽस्मीति तथेति तथा
महानग्राभूतया सोमं राजानमक्रीणंस्तामनुकृतमस्मद्वा वस्ततरी-
माजन्ति सोमक्रयणीं तथा सोमं राजानं क्रीणन्ति तां पुनर्निक्रीणीयात्
पुनर्हि सा ता नागच्छत्तस्मादुपांशु वाचा चरितव्यं सोमे राजनि क्रीते
गन्धर्वेषू हि तर्हि वाग् भवति साऽग्रावेव प्रणीयमाने पुनरागच्छति ।
व्याख्यायतां सोपष्टुम् ।

15

(b) मनोतामन्तस्य वायव्ये ऊहो ऽस्ति न वा प्रतिपाद्यताम् ।

(c) कृत्स्नः पशुर्हविस्त प्रत्यङ्गं हविर्भेदः ? प्रतिपाद्यताम् ।

4. (a) प्रउगशस्त्रस्य स्वरूपं किम् ?

15

(b) यज्ञायज्ञीयसाम्नः कुत्र विनियोगः ?

(c) अजस्य पशोः प्राशस्य कीदृशं श्रुत्या दर्शितम् ?

5. (a) ग्रहप्रैष शब्दयोर्निर्वचनं कीदृशं श्रुत्या दर्शितम् ?

20

(b) आप्यन्ते वै स्तोमा आप्यन्ते कुन्दांसि तृतीये ऽह्नेतदेव तत्
उच्छिष्यते वागित्येव तदेतदक्षरं अक्षरं वागित्येकमक्षरमक्षरमिति
अक्षरं स एवैष उत्तरस्त्रहो वागेकं गौरेकं द्यौरेकं ततो वै वागेव
चतुर्थमहर्वहति तद्यच्चतुर्थमहर्नूद्यन्त्ये तदेव तदक्षरमभ्यायच्छन्त्ये-
तद्वधेयन्त्येतत्प्रतिभावयिष्यन्ति चतुर्थस्याह उद्यत्यै । व्याख्यायतां
सोपष्टुम् ।

SECOND HALF.

Examiner—PASUPATINATH SHASTRI, M.A.

Any TWO of the first three questions, and any ONE of the next two,
are to be answered.

1. (a) किं नाम सूरौहणम् ?

13

(b) को वा प्रशास्ता ? को वा होतृका ?

(c) संपातसूक्तानीति व्यपदेशः कुतः ? अस्मिन् विषये या आख्यायिका वर्तते सा विलिख्यताम् ।

2. (a) भार्याभरणार्द्धम् आहिताग्निग्निहोत्रमनुतिष्ठेन्न वा इति विचार्यताम् । 13

(b) को नाम फलचमसः ? कथं वास्य उन्नयनं भवति ?

(c) पशोः उपाकरण-नियोजन-पर्यागुकरणानि संक्षेपेण वर्णयन्ताम् ।

3. (a) का नाम दिगपराजिता इत्युच्यते ? कथमस्या एतन्नाम सम्पन्नम् ? 13

(b) ब्रह्मणः परिमर इत्यनेन भवता किं बुध्यते ?

(c) राजसूये अभिषेकप्रकारो वर्ण्यताम् । ..

4. Translate the following into classical Sanskrit :— 24

(a) तद्भविष्योः परमं पदं सदा पश्यन्ति सूरयः ।

दिवौव चतुराततम् ॥

(b) स नः पितेव सूनवे ऽग्निं सूपायनो भव ।

सचस्वा नः स्वस्तये ॥

(c) आजिघ्न कलशं मञ्चुरुधारा पयस्वत्या त्वा विशस्त इन्द्व ससुद्रमिव सिन्धवः सा मा सहस्र आभज प्रजया पशुभिः सह पुनर्मा विशताद्रयिः ।

(d) आहं दीक्षामरुहम् ऋतस्य पत्नीं

गायत्रेण कृन्दसा ब्रह्मणा वर्त

सत्येऽधां सत्यमृते ऽधाम् ।

(e) पूर्णान् ग्रहान् सृष्ट्वीयादामयाविनः, प्राणान् वा एतस्य शुग् ऋच्छति यस्य आमयति, प्राणा ग्रहाः प्राणानेवास्य शुचो मुञ्चति उत यदतीतासुर्भवति जीवत्येव ॥

5. Translate the following into classical Sanskrit :— 24

(a) अप्सु मे सोमो अब्रवोदन्तर्विश्वानि भेषजा ।

अग्निं च विवशश्मभुव मापश्च विश्वभेषजौः ॥

(b) श्रेष्ठं यद्विष्ट मतिथिं स्वाहुतं जुष्टं जनाय दाशुयेः ।

देवांश्च यातवे जातवेदसमग्निमीडे व्युष्टिषु ॥

(c) आष्यायस्व मदन्तिम सोम विश्वेभिरं शुभिः ।

भवा नः सुप्रवक्ष्यतः सखा वृधे ॥

(d) इन्द्रो वै सदृङ् देवताभि राक्षीत् स न व्यावृत्तम् अगच्छत् स प्रजापतिमुपाधावत् तस्मा एतं पञ्चदशरात्रं प्रायच्छत् तमाहरत् तेनायजत ततो वै सोऽन्याभिर्देवताभिर्व्यावृत्तमगच्छत् स एवं विद्वांसः पञ्चदशरात्रमाचते व्यावृत्तमेव पाप्मना आतृव्यण गच्छन्ति ।

(e) समुद्रं वा एते प्रप्लवन्ते ये संवत्सरमुपयन्ति यो वै समुद्रस्य पारं न पश्यति न वै स ततः उदेति संवत्सरो वै समुद्रः तस्य एतत् पारं यदतिरात्रो य एवं विद्वांसः संवत्सरमुपयन्ति अनती एव उदृचं गच्छन्ति ।

SANSKRIT.

GROUP B.

SEVENTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

Full marks—75.

(The questions are of equal value).

FIRST HALF.

Examiner—BABU KOKILESWAR BHATTACHARYYA, M.A.

1. Answer either (a) or (b) :—

(a) Give the substance in your own words of the “Dreaming state” (सप्न-स्थान) of the Individual Self as described in the Brihad-āranyaka Upanishad, and discuss the theory.

(a) अन्धं तमः प्रविशन्ति येऽविद्यामुपासते ।

ततो भूय इव ते तमो य उ विद्यायां रताः ॥

Explain this sloka after the manner of Sankara and write full explanatory notes on the terms अविद्या and विद्या as used here.

2. Explain the relation between कर्म, उपासना and ब्रह्मविद्या । What place does Sankara assign to कर्म, उपासना in the scheme of ब्रह्मज्ञान ?

3. Write what you know about **सूक्ष्म** and **संस्कार्यामी** as given in your text.

Explain:—

जाग्रद्विषया अपि मानसप्रत्ययाभिनिर्वृता एव । सदीप्ताभि-
निर्वृत्ततेजोबन्धमयत्वात् जाग्रद्विषयाणाम् । संकल्पमूला हि लोका
इति च उक्तम् । तस्मान्मानसानां वाङ्मानां च विषयाणां इतरंतर-
कार्यकारणत्वमिष्यत एव वीजाङ्कुभवत् ।

4. Explain the theory of **सत्कार्यवाद** । How does Sankara refute the view of **तार्किक** that the effects (**कार्य**) are non-existent in their cause (**कारण**) ?

5. Fully explain *either* of the two:—

(a) तथा सांख्याः द्रष्टारं देहादिव्यतिरिक्तं अवगम्यापि त्यक्तागम-
प्रमाणत्वात् सृष्टिविषये एव अणत्वदर्शने तथ्यः । तथा काण्डादा
नवभिरात्मगुणैर्युक्तमात्मद्रव्यं विशेषयितुं प्रवृत्ताः ।

(b) स न आकाशः नामरूपयोः स्वात्मस्थयोः जगद्बीजभूतयोः
सलिलस्येव फेनस्थानीययोः निर्वोढा व्याकर्ता । ते नामरूपे यस्य ब्रह्मणे
अन्तरा मध्ये वर्तन्ते, यन्नामरूपाभ्यामस्पृष्टं तद् ब्रह्म नामरूपविलक्षणं...
तथापि तयोर्निर्वोढः ।

SECOND HALF.

Examiner—VEDANTABISARAD N. S. ANANTAKRISHNA SASTRI.

1. Translate into English *one* of the following extracts:—

10

(a) न तथा अस्माभिः कदाचित् क्वचिदपि सतोऽन्यदभि-
धानमभिधेयं वा वस्तु परिकल्प्यते । सदेव तु सर्वमभिधानमभिधीयते
च यदन्वबुद्ध्या । यथा रज्जुरेव सर्पबुद्ध्या सर्प इत्यभिधीयते, यथा वा
पिण्डघटादिभूतोऽन्वबुद्ध्या । पिण्डघटादिशब्देन अभिधीयते लोके ।
रज्जुविवेकदर्शनां तु सर्पाभिधानबुद्धौ निवर्तते, यथा च सृष्टिवेक-
दर्शनां घटादिशब्दबुद्धौ, तद्वत् सृष्टिवेकदर्शनामन्यविकारशब्दबुद्धौ
निवर्तते ।

(b) स गन्धर्वो वायुमेव—क्रियाशक्तिप्रधानं सूत्रमेव—प्रशशंस ।
अथैव अस्मिन् चराचरे जगति सामान्यविशेषरूपेण अन्तर्बहिश्च व्याप्य
अवस्थानात् । यस्मादेवं तस्मात् वायूरेव व्यष्टिः—अद्यात्माधि-

भूताधिदैवविभागेन व्यावृत्तरूपा विविधा अष्टिव्याप्तिरित्यर्थः । तथा वायुरेव समष्टिः — समा अनुगतरूपा केवलेन सूत्रात्मना अष्टिव्याप्तिः ।

2. Translate into English extracts (a) and (b):—

(a) जीवेन न प्राणसंयुक्तेन अशितं पोतं च, रसतां गतं, जीवच्छरीरं बद्धयत् रसरूपेण, जीवस्य सङ्गावे लिङ्गं भवति । अशीतः पीताभ्यां हि देहे जीवस्तिष्ठति । ते च अशितपीते जीवकर्मानुसारिणी इति : जीवस्थितिनिमित्तो रसः जीवकर्माक्षिप्तः जीवोपसंहारे न तिष्ठति ।

(b) अविद्यायामन्तरे वर्तमानाः

स्वयं धीराः पण्डितम्मन्यमानाः ।

दन्द्रम्यमानाः पारयन्ति मूढाः

अन्धेनैव नीयमाना यथान्धाः ॥

न साम्यरायः प्रतिभाति बालं

प्रमादयन्तं वित्तमोहेन मूढम् ।

अयं लोको नास्ति पर इति मानी

पुनः पुनर्वशमापद्यते मे ॥

तं दुर्दर्शं मूढमनुप्रविष्टं

गृहाद्वितं गच्छरेष्टं पुगणं ।

अद्यान्मयोगाधिगमेन देवं

मत्वा धीरो हर्षशोकौ जहाति ॥

SANSKRIT.

GROUP B.

EIGHTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiner—PANDIT BAHUBALLABH SASTRI.

1. 'सर्वाख्यवान्वाहार्यवन्ति' इति सूत्रस्यान्वाहार्यपदस्य कोऽर्थः, 20
अत्र अन्वाहार्यपदेन पारिभाषिकार्थस्य ग्रहणम्* उत योगिकार्थस्य
सप्रमाणं लिख । पारिभाषिकार्थग्रहणे कश्चिद्दोषो ऽस्ति न वा ?
लक्षणावृद्धेः सर्वत्र । अस्य सूत्रस्य कोऽर्थः ? गोभिलोक्ताचमनक्रमा
ग्रहणे को हेतुः ? एषां मध्ये द्वयोः प्रश्नयोरुत्तरं लिख ॥
2. यद्य् वा उभयं विकीर्षद् द्वौ त्रं चैव ब्रह्मत्वं चैव एतेनैव 20
कर्त्तुं क्वं वोत्तरासंगं वोदकमण्डलुं दर्भवद् वा ब्रह्मासने निधाय
तेनैव प्रत्यङ्गाथान्यच्चेष्टेत् ॥ पूर्वमाच्यमपरः स्थालीपाकः ॥ अनयोः
सूत्रयोः कोऽर्थः ?
3. अपरेणाग्निमानडुहं रोहितं चर्म प्राग्ग्रीवमुत्तरलोमास्तीर्णं 20
भवति ॥ अस्य कोऽर्थः ॥
कदा सीमन्तकरणं कर्त्तव्यम् ? कदा नामधेयकरणम् ? कदा
चूडाकरणसंस्कारः कर्त्तव्यः ? एतत्सर्वं सप्रमाणं लिख ॥
सावित्रमहः काङ्क्षन्ते । उदगयने च पक्षिणीं रात्रिम् । यशसे
नेजस इति च । एषां कोऽर्थः ।
एषां प्रश्नानां मध्ये द्वयोः प्रश्नयोरुत्तरं लिख ॥
4. प्रतिदिशं साधिके प्रक्रमे । तृष्णीं चोपदध्यात् तत्र । एका 15
कर्षुः । इतरदन्वाहार्यं मासीनम् । उभयेषु उभयकामः ॥ एषां सूत्राणां
मध्ये त्रयाणां व्याख्या कार्या ॥

SECOND HALF.

Examiner—MAHAMAHOPADHYAYA DR. GANGANATH JHA, M.A.,
D.LITT.

1. Translate into Sanskrit *one* only of the following passages:—

(a) 'The world of our present consciousness is only one out of many worlds of consciousness that exist; those other worlds must contain experiences which have a meaning for our life also; and although in the main those experiences and those of this world keep distinct, yet the two become continuous at certain points and higher energies filter in. By being faithful to this inner belief we seem to keep more sane and true. We can put ourselves into the sectarian scientist's attitude and imagine vividly that the world of sensations and scientific laws and objects may be all. But whenever we do this, we shall hear the inward monitor whispering 'bosh!' Humbug is humbug even though it bear a scientific name, and the total expression of human experience invincibly urges us beyond the narrow scientific bounds. Assuredly the real world is more intricately built than physical science allows.'

(b) "Sorrow and anguish, which result inevitably from the passions in the emotional life, constitute the purifying fire designed to purge away the dross of our nature and transmute it into the pure *Sattva*, where purity, goodness and truth are predominant. Brute appetite and blind impulse are first superseded by passion, and passion,—working, through sorrow and the reflection and sympathy which sorrow begets, its own extinction,—finally merges in, and is swallowed up in, love and absolute resignation."

(c) "Truth is within ourselves; it takes no rise
From outward things. Whate'er we may believe,
There is an inmost centre in us all
Where Truth abides in fullness; and around
Wall upon wall the gross flesh hems it in,
This perfect, clear, perception—which is truth;—
A baffled and perverted carnal mesh
Binds it, and makes all error: and to know
Rather consists in opening out a way,
Whence the imprisoned splendour may escape
Than in effecting entry for a light
Supposed to be without."

SANSKRIT.

GROUP D.

FIFTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Examiner—MAHAMAHOPADHYAYA LAKSHMAN SASTRI.

SIX questions are to be attempted in this half, selecting any three from each group.

The questions are of equal value.

Full marks—50.

GROUP A.

1. महावाक्यानामखण्डार्थप्रतिपादकत्वं यथा रीत्या सा प्रदर्शयताम् ।

2. वेदादीनामनात्मत्वं कया युक्त्या प्रतिपादितम् ?

3. अखण्डार्थस्य लक्षणं किम् ?

4. प्रमाणक्षयेऽनधिगतत्वविशेषणे दत्ते धारावाहिकविज्ञानेऽव्याप्तिः कया रीत्या वारणीया ।

5. विषयगतप्रत्यक्षत्वप्रयोजकं निष्कृष्टं किमप्रदर्शितम् ? कस्य हेतोश्च ? तन्निरूपयताम् ।

6. प्रामाण्यं स्वतो ग्राह्यमुत परतः ? विविच्योत्तरं साधक-साधकयुक्तिपुरस्सरं निरूपयताम् ।

7. अवयवमननादीनां मध्ये कस्याङ्गत्वमङ्गित्वं वा मतभेदोल्लेख-पूर्वकमुच्यताम् ।

GROUP B.

1. अवयवे विधिरपूर्वा नियमो वा परिषद्भूया वा ? उपपत्ति-सहितमुत्तरमुच्यताम् ।

2. साक्षिस्वरूपं किम् ? किमर्थं चाङ्गीक्रियते ?

3. अमस्यले इदमाकारवृत्तेरतिरिक्ता 'इदं रजत'मित्याकारिका वृत्तिरङ्गीक्रियते न वा ? अङ्गीक्रियते चेत् कस्य हेतोः ?

4. प्रत्यक्षेण सहाद्वैतश्रुतेर्विरोधे कस्य बलीयस्त्वं कणा युक्ता प्रतिपादितम् ?
5. मुक्तेरात्मस्वरूपत्वं तद्भिन्नत्वं वा ? युक्तिपुरस्सरमुच्यताम् ।
6. मुक्तस्थेश्वरभावापत्तिर्भवत्युत शुद्धब्रह्मरूपेणाऽवस्थानम् ? अत्र मतभेदोल्लेखपूर्वकमुत्तरम्दर्शयताम् ।
7. यक्षादीनां विविदिषाङ्गत्वं ज्ञानाङ्गत्वं वा ? सयुक्तिकमुत्तरमुच्यताम् ?
8. सुषुप्तावविद्यावृत्तिरङ्गीक्रियते न वा ?

SECOND HALF.

Examiner—BABU KOKILESWAR BHATTACHARYYA, M.A.

The figures in the margin indicate full marks.

Full marks—50.

1. Explain the theory of Mâyâ as set forth in the *Siddhânta-lesha*. What is your opinion about the unreality of the Mâyâ? 9
2. Describe the condition of a जीवन्मुक्त or the nature of the भ्रमज्ञान। 8
3. Briefly state the views set forth in the *Vedānta-Paribhāṣhā* and in the *Vedānta Sāra* about the theory of Perception of external objects. 8

4. Translate into English the following extracts :—

(a) इह खलु धर्म्मार्थकाममोक्षाख्येषु चतुर्विधेषु मोक्ष एव परमपुरुषार्थः । 'न स पुनरावर्तते' इत्यादि श्रुत्या तस्यैव नित्यत्वावगमात् ; इतरेषां त्रयाणां प्रत्यक्षेण 'तदुपगच्छ कर्मचितो लोकः क्षीयते एवमेवामुत्र पुण्यचितो लोकः 'क्षीयते' इत्यादि श्रुत्या चानित्यत्वावगमाच्च । स च ब्रह्मज्ञानादिति ब्रह्म तज्ज्ञानं तत्प्रमाणञ्च सप्रपञ्चं निरूप्यते । 9

(b) विशेषो हि भवति शरीर-परमेश्वरयोः । एकः—कर्ता भोक्ता धर्म्माधर्म्मसाधनः सुखदुःखादिमांश्च । एकः—तद्विपरीतोऽपह-तपाप्मादिगुणकः । यदि च सन्निधानमात्रेण वस्तुशक्तिमनाश्रित्य कार्यसम्बन्धोऽभ्युपगम्येत, आकाशादीनामपि दाहादिप्रसङ्गः । 8

(c) न हि अनभ्यस्ते विषये कौशलमिन्द्रियाणां भवति । पूर्वानु-भववासनाप्रवृत्तानान्तु इन्द्रियाणां इह अभ्यासमन्तरेण कौशलमुप- 8

पद्यते । दृश्यते च केषाञ्चित् कासुचित् क्रियासु चित्रकर्मादिलक्षणासु
विनेव हि अभ्यासेन जन्मत एव कोशलं ? कासुचित् अत्यन्तसौकर्य-
युक्तास्वपि अकोशलं केषाञ्चित् ।

SANSKRIT.

GROUP D.

SIXTH PAPER.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

FIRST HALF.

*Examiner—MAHAMAHOPADHYAYA PRAMATHANATH TARKABHU-
SHAN.*

1. “यद्यप्यन्यत्र वेदवाक्यानां विधिसंस्पर्शमन्तरेण प्रमाणत्वं न
दृष्टं तथाप्यात्मविज्ञानस्य फलपर्यन्तत्वान्न तद्विषयस्य शास्त्रस्य प्रामाण्यं
शक्यं प्रत्याख्यातुम् । न चानुमानगम्यं शास्त्रप्रामाण्यं येनान्यत्र 'दृष्टं
निदर्शनमपेक्षते’ । इति भाष्ये प्रथमान्यत्रपदार्थाद् द्वितीयान्यत्र-
पदार्थस्य विवेकः स्फुटीकरणीयः । फलपर्यन्तत्वादित्यत्र किं तावत्
फलं इति निर्दिश्यं, तच्च फलं नित्यमनित्यं वेति विचारणीयं । ये
तावदनुमानगम्यं शास्त्रस्य प्रामाण्यं अङ्गीकुर्वन्ति तेषां तदनुमानप्रकारः
कौदृश इति प्रतिपादनीयं । शास्त्रप्रामाण्यस्यानुमानगम्यत्वं कथं
सिद्धान्तिना नाङ्गीक्रियते ? फलपर्यन्तत्वाभावः शास्त्रप्रामाण्य-
प्रत्याख्यानायालमिति सूचयतो भाष्यकारस्य आशयः वैशद्येन प्रति-
पादनीयः ।

अथवा,—

सोऽयमभ्युपगमो द्रव्यगुणयोरपृथग्देशत्वेऽभ्युपगम्यमाने बाध्यते ।
अथापृथक्कालस्त्वमयुतसिद्धत्वं उच्यते सद्यदक्षिणयोरपि गोविषाणयोर-
युतसिद्धत्वं प्रसज्यते । तथाऽपृथक्स्वभावत्वे त्वयुतसिद्धत्वे न द्रव्य-
गुणयोरात्मभेदः सम्भवति तस्य तादात्म्येनैव प्रतीयमानत्वात् । इति
भाष्यं प्रकृतसङ्गतिं प्रदर्शय व्याख्यायताम् । अत्र द्रव्यगुणयोरपृथग्देशत्वं

कथमभ्युपगम्यतां? द्रव्यं संयोगेन भूतलादौ वर्तते, गुणस्तु समवायेन द्रव्ये भूतलादिवर्तिनि वर्तते, इत्येवमेव आरम्भवादिनामभ्युपगमात् । तस्य इति तदा कस्य परामर्शः? द्रव्यं गुणवत् इति सर्ववादिषिद्ध-प्रतीतो सत्यां कथं “तादात्म्येनैव प्रतीयमानत्वात्” इति भाष्योक्तिः सङ्गच्छते? अयुतसिद्धत्वमिति पदस्य कस्तावद् योगलभ्यार्थः? स्वप्रतियोगिकसमवायानुयोगित्वं स्वानुयोगिकसमवायप्रतियोगित्वं वा अयुतसिद्धत्वमित्युक्तौ का हानिः स्यात् ।

2. यानि सूत्राणि आलम्ब्य आनन्दमयाधिकरणं प्रवृत्तं तानि स्वरूपतो निर्दिश्य तद्वाक्यामुखेन तदधिकरणमारच्याम् ? 15

अथवा,—

यानि सूत्राणि आलम्ब्य ज्योतिश्चरणाधिकरणं प्रवृत्तं तानि स्वरूपतो निर्दिश्य तद्वाक्यामुखेन तदधिकरणमारच्यताम् ।

3. “संभोगप्राप्तिरिति चेन्न वैशेष्यात्” । 20
 “अन्तर्याम्यधिदेवादिषु तदुर्मध्यपदेशात्”
 “दृष्टापेक्षया तु मनुष्याधिकारत्वात्” ।
 “संस्कारपरामर्शात्तदभावाभिलाषाच्च” ।
 “ज्योतिरुपक्रमा तु तथा द्यधीयत एके” ।
 “इतरत्रपदेशाद्विजाकारणादिदोषप्रसक्तिः” ।
 “न च पर्यायादप्यविरोधो विकारादिभ्यः” ।
 “यावदात्मभावित्वाच्च न दोषस्तद्दर्शनात्” ।

इत्येतेषु चत्वारि सूत्राणि यथायथमध्यायपादाधिकरणसङ्गति-प्रदर्शनपुरःसरं भाष्योक्तदिशा व्याख्येयानि ।

SECOND HALF.

Examiner—BABU NALINIMOHAN MUKHERJEE, M.A.

1. Explain any five of the following terms as used in the Vedānta philosophy :— 10

संध्यम्, हार्दविद्या, उपाधिः, सूत्रात्मा, अनुबन्धः, समाधिः, सायुज्यम्, आध्यानम् ।

2. Establish, after the manner of the *Vedāntins*, the existence of a conscious self overlying the body of *Jīva*, by showing the fallacy of the materialistic theory that consciousness is the product of the conglomeration of matter. 7

Or,

Discuss fully the beatitude attainable from the worship of qualified (सगुणम्) *Brahman*. 7

3. Examine the arguments in any two of the following extracts, giving your opinion about them :— 8

(a) उपचितापचितगुणत्वं हि सति भेदव्यवहारे सगुणे ब्रह्मण्युपपद्यते, न निर्गुणे परस्मिन् ब्रह्मणि ।

(b) न च ब्रह्मविदः सर्वगत-ब्रह्मात्मभूतस्य प्रक्षीणकामकर्मण्यत्कृत्तान्तिर्गतिर्वोपपद्यते, निमित्ताभावात् ।

(c) यत् सर्वगतं सर्वान्तरं सर्वात्मकं च परं ब्रह्म तस्य गन्तव्यता न कदाचिदुपपद्यते ।

(d) न च आवापोद्वापभेदाद्देहभेदो विद्याभेदश्चाशङ्क्यः, कस्यचिद्देवांशस्यावापोद्वापयोरपि भूयसी वेद्याशेरभेदावगमात् ।

4. Translate into Sanskrit either of the following extracts :—

25

(a) Indian philosophy, and in particular its earliest form, the philosophy of the Upanishads, or Vedānta, is governed throughout by two needs. First, there is the need to give consistency and coherence to existing imagery, physical and hyperphysical, to work out a conception of the totality of things. Secondly, there is the need to put a stop to the miseries of metempsychosis. The idea of transmigration, foreign to the Indo-Aryans of the Vedic hymns, appears to have been taken up by their successors from the lower races with which they intermingled, while retaining their supremacy among them. The Indo-Aryans of the Vedic hymns found life pleasurable and exciting. They prayed to the gods for their hundred years of it, and for an after-life with the whole body.

(b) Brahman is both the real and the operative cause of the world. It is the real cause, inasmuch as the transmigratory series fictitiously overlies it. "Over this the sky, the earth, the welkin, are woven." "Illusion," says Sankarāchārya, "the aggregate of the powers of all causes and effects, reposes upon Brahman, woven across and across it, as the potentiality of the banyan tree reposes in the seed of the tree." "A fictitious object," says Ānandagiri, "such as the snake seen in a piece of rope, has a relatively real substratum in the piece of rope; the transmigratory series, unreal because phenomenal, has a real substance beneath it." Brahman is the operative cause of the world, inasmuch as the world-projecting illusion, inert of itself, becomes active by proximity to Brahman.

SANSKRIT.

GROUP D.

SEVENTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiner—DR. V. A. SUKHTANKAR.

(a) ननु च सकलभेदनिवृत्तिः प्रत्यक्षविरुद्धा कथमिव शास्त्रार्थ-
जन्यविज्ञानेन क्रियते । कथं वा रज्जुरेषा न सर्प इति ज्ञानेन प्रत्यक्ष-
विरुद्धा सर्पनिवृत्तिः क्रियते । तत्र द्वयोः प्रत्यक्षयोर्विरोधः । इह तु
प्रत्यक्षमूलस्य शास्त्रस्य प्रत्यक्षस्य चेति चेतुल्ययोर्विरोधे कथं बाध्य-
बाधकभावः । पूर्वोत्तरयोर्दुष्टकारणजन्यत्वतदभावाभ्यामिति चेत्,
शास्त्रप्रत्यक्षयोरपि समानमेतत् । एतदुक्तं भवति । बाध्यबाधकभावे
तुल्यत्वापेक्षत्वनिरपेक्षत्वादि न कारणं ज्वालाभेदानुमानेन प्रत्यक्षोप-
मर्दयोगात् । तत्र हि ज्वालैकं प्रत्यक्षेणावगम्यते । एवं सति द्वयोः
प्रमाणयोर्विरोधे यत्सम्भाव्यमानान्यथासिद्धि तद्बाध्यम् । अनन्यथासिद्ध-
मनवकाशमितरद्बाधकमिति सर्वत्र बाध्यबाधकभावनिरणय इति ।

15

(b) न च वाच्यं स्वाप्नस्य हस्त्यादिज्ञानस्यासत्यस्य परमार्थशुभा-
शुभप्रतिपत्तिहेतुभाववदविद्यामूलत्वेनासत्यस्यापि शास्त्रस्य परमार्थ-
भूतब्रह्मविषयप्रतिपत्तिहेतुभावो न विरुद्धः इति । स्वाप्नज्ञानस्या-
सत्यत्वाभावात् । तत्र हि विषयाणामेव मिथ्यात्वम् । तेषामेव बाधो
दृश्यते न ज्ञानस्य । तस्योत्पत्तिमत्त्वादर्थक्रियाकारित्वाच्च सत्यत्वमव-
सीयते । हस्त्यादीनामभावे कथं तद्बुद्ध्यः सत्या भवन्तीति चेन्न ।
एतद्बुद्धीनां सालम्बनत्वमात्रनियमात् । अर्थस्य प्रतिभासमानत्वमेव
सालम्बनत्वेऽपेक्षितम् । प्रतिभासमानता चास्त्येव दोषवशात् । स तु
बाधितोऽसत्य इत्यवसीयते ।

(c) यस्य पदार्थस्य कस्यचित्प्रकारतया सङ्गावस्तस्य तदपृथक्-
सिद्धिस्थितिप्रतीतिभिस्तद्वाचकानां शब्दानां स्वाभिधेयविशिष्टद्वय-

वाचिह्वाद्गमन्तर्गतिशिश्रुतद्रव्यवाचिना शब्देन सामानाधिकरण्यं युक्तमेव । यत्र पुनः पृथक्शिश्रुतस्य स्वनिश्रुत्यैव द्रव्यस्य कदाचिह्वा-
दिद्रव्यान्तरप्रकारत्वमिष्यते तत्र मत्वर्थीयप्रत्यय इति निरवह्यम् ।
तदेवं परमात्मनः शरीरतया तत्प्रकारत्वादचिह्वादिशिश्रुतस्य जीवस्यापि
जीवनिर्देशविशेषरूपा अहंत्वमित्यादिशब्दाः परमात्मानमेवाचक्षत इति
तत्त्वमसीति सामानाधिकरण्यनापसंहृतम् । एवञ्च सति परमात्मानं
प्रति जीवस्य शरीरतयाऽन्वयाज्जीवगता धर्माः परमात्मानं न स्पृशन्ति ।

एषामुद्धृतानां भाष्यांशानामनुवादः सरलसंस्कृतभाषयाऽऽहङ्गल-
भाषया वा कार्यः ।

2. “शास्त्रयोनित्वात्” इत्यस्मिन् सूत्रे ब्रह्मणो जगन्निर्मातृत्व- 10
शिश्रुते पूर्वपक्षिणा प्रयुक्तान्यनुमानानि प्रदर्श्य तेषु श्रीभाष्यकृन्मते ये
दोषाः सन्ति ते स्पष्टं निरूप्यन्ताम् ।

3. वेदान्तशास्त्रं शारीरकमित्यधीयत इत्यस्य रामानुजमते किं 10
प्रयोजनम् ? तत्र प्रमाणभूताः श्रुतयो निरूप्य तासां “नेह नानास्ति
किञ्चन” इत्यादिभिर्भेदनिषेधश्रुतिभिरविरोधो भाष्यकृता कथं
समर्थितः ।

4. निम्ननिर्दिष्टश्रुतिवाक्यानां श्रीभानुसारिणी व्याख्याकार्याः— 10
(a) सयं ज्ञानमनन्तं ब्रह्म ।
(b) ब्रह्मविदाप्नोति परम् ।
(c) न दृष्टेर्द्रष्टारं पश्येन् मतेर्मन्तारं मन्वीषाः ।
(d) यदा ह्येवैष एतस्मिन्नुदरमन्तरं कुरुते । अथ तस्य भयं
भवति ।

(e) एकमेवाद्वितीयम् ।
5. निम्नलिखितवाक्यानि स्फुटं व्याख्येयानि— 10
(a) शास्त्रं प्रयोजनपर्यवसाय्येव ।
(b) अपच्छेदनायेन निर्गुणवाक्यानां गुणापेक्षत्वेन परत्वा-
द्वितीयत्वम् ।

(c) गकारादेर्बोधकस्यैव ओत्रग्राह्यत्वेन शब्दत्वम् ।
(d) मिथ्यात्वं नाम प्रतीयमानत्वपूर्वकयथावस्थितवस्तुज्ञान-
निवर्त्यत्वम् ।

(e) इतिहासपुराणाभ्यां वेदं समुपहृंहयेत् ।

6. प्रत्यक्तं निर्विशेषसन्मात्रग्राहीति पक्षः सयुक्तिकं प्रतिपाद्य 10
भाष्योक्तदिशा खण्डयताम् ।

7. “सदेव सोम्येदमग्र आसीत्” इत्यत्र सच्छब्देन परं ब्रह्मैव 10
प्रतिपाद्यं न प्रधानमिति सिद्धौ ईक्षत्यधिकरणोक्तप्रमाणानि
निरूपणीयानि ।

SECOND HALF.

Examiner—VEDANTABISARAD N. S. ANANTAKRISHNA SASTRI.

1. यथाभिमतं प्रश्नत्रयं समाधेयम् प्रथमो नियतं समाधेयः । 9
कानि नास्तिकदर्शनानि कानि चास्तिकदर्शनानि षट् ? नास्तिकव्यपदेश
आस्तिकव्यपदेशश्च किन्निबन्धनः ? वेदाप्रामाण्यवादिनो वैशेषिकाः
वेदाप्रामाण्यवादिनोऽपीश्वरर्मनङ्गीकुर्वाणा निरीश्वरमीमांसका निरीश्वर-
सांख्याश्चास्तिका वा नास्तिका वा सर्वं विविच्य निरूपयताम् ।

2. असत्कार्यवादं सत्कार्यवादं सद्दिवर्तवादञ्च सोपपत्तिकं 8
संगृह्य तत्रान्यतमपक्षः समर्थयताम् ।

3. अद्वैतदर्शनस्यैव पारमार्थ्यं दर्शनान्तराणां पूर्वाचार्यप्रवर्तितानां 8
किं प्रयोजनमभिमतं भवति ? केन केन प्रकारेण दर्शनान्तरैरद्वैत-
दर्शनस्याविरोधः ?

4. जावमध्यमपरिमाणत्वे तदणुपरिमाणत्वे, तन्महत्परिमाणत्वे 8
तदनेकत्वे तदेकत्वे च युक्तयः संगृह्यन्ताम् ।

5. सौगतद्वैतमतयोः किमद्वयं साध्यम् ? कुतश्च सौगतमतस्य 8
क्षेयता ? एकसुगतमूलस्य सौगतमतस्य चातुर्विधे किं निमित्तम् ?
चतुर्णां प्रकाराणां प्रवर्तकाः के ? वैभाषिकादिसंज्ञायां किं निमित्तम् ?

6. स्यादस्तीत्यादिसप्तभङ्गीं विलिख्य भङ्गीभेदः किन्निबन्धनः ? 8
स्यात्पदस्य भङ्गपदस्य पुद्गलास्तिकायपदस्य च कोऽर्थः इति
विलिख्यताम् ।

SANSKRIT.

GROUP D.

EIGHTH PAPER.

*Examiner—PANDIT SITARAM SASTRI.**Candidates are required to give their answers in their own words as far as practicable.**The figures in the margin indicate full marks.*

FIRST HALF.

1. 'स आत्मा विज्ञेयः' इति आत्मनो ज्ञानविषयतोच्यमाना 10
'नान्तःप्रज्ञम्' इत्यादिग्रन्थप्रतिपाद्यज्ञानविषयत्वांक्तिं विरुणद्धि न
वा? न चेद्, अविराधप्रकारः प्रदर्शनीयः।

'अदृष्टमव्यवहार्यमग्राह्यमलक्षणमचिन्त्यमव्यपदेश्यम्' इत्येतैः
शब्दैरात्मनि किं किं व्युदस्यते?

उपनिषद्भेदोक्तमाख्यानमभ्यां व्यवहाराभिप्रायः स्फोरणीयः।

2. 'नित्यं विधुं सर्वगतम्' इत्यादिनाऽऽत्मनोऽपरिच्छिन्नत्वमुक्त्वा 10
'एषोऽणुरात्मा चेतसा वेदितव्यः' इति तस्याणुत्वमुच्यमानं कथं
सङ्गच्छते? अपरिच्छिन्नत्वाणुत्वयोः कतरद्युक्तिमद् आत्मनि, कुतश्चेति
विशदनीयम्।

उपनिषच्छब्दव्युत्पत्तिः प्रदर्शनीयः।

3. एकद्वयङ्काङ्कितयोरन्यतरं व्याख्याय त्रयङ्काङ्कितः सम्यगुत्तर- 10
णीयः।

(1) श्वेताश्वतरोपनिषद्भाष्यस्य शाङ्करत्वं न वा? अशांकरत्वे
प्रमाणानि प्रदर्शनीयानि; सत्स्वरूपे तेषु प्रमाणेषु अशांकरत्वं व्यवस्थापयितुं
यदि शक्येत, सम्यक् प्रदर्शनीयम्।

(2) साङ्ख्यशास्त्रश्वेताश्वतरोपनिषदोः पौर्वापर्यं पौरुष्यपा-
श्चात्तयोः कौटुशो मतभेदः? पाश्चात्तगोक्तविरोधपरिहारपूर्वं
पौरुष्यमतं स्थापयितुं यदि सुशक्यम्, तर्हि तत्प्रकारो दर्शनीयः।

(3) 'तमेकनेमिं त्रिवृतं षोडशान्तं शतार्धारं विंशतिप्रत्यराभिः।
अष्टौः षड्भिर्विश्वरूपेकपाशं त्रिमार्गभेदं द्विनिमित्तैकमोहम्।

अथ मन्त्रस्याभिप्रायः सम्यक् समर्थः।

4. 'ते तत्र यथा विवेकं न लभन्ते... एवमेव खलु सोम्येसाः 10
सर्वाः प्रजाः सति सम्पद्य न विदुः '— सति सम्पद्यामहे' इति ।

कोऽत्र सति सम्पादः? कदा, कथं च स भवति? सस्कृद्धेन
किमत्र गृह्यते?

'ऐतदात्म्यमिदं सर्वम्' इति सर्वस्यैकात्म्यरूपतोच्यमाना घट-
पटाद्यनेकविधसांसारिकवस्तुषु प्रत्यहमनुभूयमानभेदेर्विरुद्धा कथं
संगच्छते?

5. मोक्षसाधनता केवलस्य ज्ञानस्य, कर्मणो वा, उभयोर्वा 10
समबलयोर्मिलितयोरिति विचार्य सिद्धान्तनीयोऽभितः पक्षः ।

कान्दोग्योपनिषदश्चोपनिषदन्तरेभ्यो विशेषः सङ्क्षिप्य संप्रदर्शयः ।

..SECOND HALF.

Examiner—BABU LAKSHMINARAYAN CHATTERJEE, M.A.

1. Attempt any two of the following:—

(a) Explain the word *Upanishad* and give a short account of
the *upanishads* belonging to the *Yajurveda*. 10

(b) What do you understand by the term *Vedānta*? Refer to
passages in your text-books (*Upanishads*) where the term occurs.
Briefly trace the development of post-vedic vedāntism from vedic
vedāntism.

(c) Explain in Sanskrit:—

मायां तु प्रकृतिं विद्यान्मायिनं तु महेश्वरम् ।

तस्यावयवभूतेस्तु व्याप्तं सर्वमिदं जगत् ।

Is *माया* in the above verse used in the same sense as *माया* of post-
vedic vedānta? If not, point out the difference in meaning.

2. Attempt one of the following:—

(a) Estimate the value of the following statement:— 5

सर्वोपनिषदो गावो (दोग्धा गोपालनन्दनः ।

पार्थो वत्सः सुधीर्भोक्ता) दुग्धं गोतामृतं महत् ॥

Support your answer with quotations from, or references to, the
Gītā and the *Upanishads*.

(b) What, according to Sankara, is the main teaching of the
Gītā, and how does he attempt to establish it? Advance your own
opinion if you happen to differ from Sankara.

3. State and explain, in Sanskrit, the philosophy taught in the 5
following verse:—

ज्ञानं त्रयं परिज्ञाता त्रिविधा कर्मबोद्धता ।

करणं कर्म कर्तति त्रिविधः कर्मसंग्रहः ॥

4. Attempt one of the following.

5

(a) Fully explain in Sanskrit:—

यावानर्थं उदपाने सर्वतः संप्लुतोदके ।

तावान् सर्वेषु वेदेषु ब्राह्मणस्य विजानतः ॥

Criticise Sankara's explanation of the above verse.

(b) Give the meanings of the following terms as used in the Gītā:—

त्यागी, क्षत्र, पुरुषोत्तम and लोकसंग्रह .

5. Translate any two of the following passages into English:—

25

(a) ब्रह्मोपासने देवानामप्यधिकारोऽस्ति । कुतः ? तेषामर्थित्व-
संभवात् । न च परमेश्वरस्य देवानां च पदं समानं, यतः सामान्येन
सुखवाचकोऽपि स्वर्गशब्दः प्रकरणादिना विशेषमभिधत्ते ; यथेश्वरशब्दः
स्वामिमात्रवाचकः प्रकरणवशात् “उपेयादौश्वरं चैव योगक्षेमार्थ-
विद्वये” — इत्यादिषु जनपदार्थपतिमात्रवाची राज्ञविषयो ; ब्रह्मणः
प्रकरणे पुनरयं निरतिशयैश्वर्यवाची तद्द्विषयो भवति, तथा सुखमात्र-
वाचकः स्वर्गशब्दः प्रकरणेन प्रमाणान्तरोपपत्त्या च देवानां पदं
तयिष्णुत्वसातिशयत्वाद्विशेषकलुषितस्वस्यसुखमभिधत्ते, परब्रह्मणः
शिवस्य पदं तु निरतिशयसुखस्वरूपमनावृत्तिलक्षणमेव ब्रूते । अतः
सातिशयत्वाद्विशेषदुष्टसुखपदवर्तिनां निरतिशयसुखं ब्रह्मपदं प्रत्यर्थित्वं
संभवत्येव ।

(b) युक्तमेव ब्रह्मणो वेदकर्तृत्वम् — “अस्य महतो भूतस्य
निःश्वसितमेतद् यदृग्वेदो यजुर्वेदः सामवेदः” इति श्रुतेः, निःश्वसितवद्
वेदराशेः अप्रयत्नेन ब्रह्मणः प्रादुर्भावात् ।

अष्टाङ्गशानामेतासां विद्यानां भिन्नवर्त्मनाम् ।

आदिकर्ता कविः साक्षाच्छूलपाणिरिति श्रुतिः ॥

इति परमेश्वरस्य सकलविद्याकर्तृत्वप्रतिपादनाच्च । सृष्टेः प्राक्
स्वात्मनि विलीनानां वेदानां पूर्वपूर्ववर्णानुपूर्व्यां नुरुपरचनया पुनः कर्ता
भवति सर्वज्ञः परमेश्वरः । अत एव वेदानामपौरुषेत्वमौश्वरकार्यत्वं
च । येषां रागाद्वेषादयस्तेषां वचनमप्रमाणमपि भवति । निरस्तमस्त-
द्विशेषकलङ्कस्य निरुपपन्ननिरतिशयज्ञानप्रत्यक्षानुभूयमानत्रैकालिकवस्तु-
विलासस्य स्वतःप्रमाणस्य परमेश्वरस्य परमाप्त्यावाप्तसमस्तकामस्य
शिवस्य ब्रह्मणो वचनं तु प्रमाणमेव भवति । “इंज्ञानः सर्वविद्यानाम्”

“स नो देवः शुभया स्मृत्या संयुनक्तु” इति हि परमेश्वरस्य सर्व-
विद्याप्रवर्तकत्वं शुभस्मृतिहेतुत्वं च श्रूयते । अतः सर्ववस्त्व-
भासकानां वेदानां परमेश्वरकर्तृकतया परमेश्वरस्य सर्वज्ञता निश्चयते,
अज्ञातस्य वक्तुमशक्यत्वात् ॥

(०) ननु जीवस्य भगवदंशत्वे विधिविषयत्वाभावात् कर्म-
सम्बन्धाभावेन कथं फलसम्बन्धः । जीवस्य च पुनरनेकदेहसम्बन्धात्
कः शूद्रः का भार्येति ज्ञानमप्यशक्यम् । अतः कर्ममार्गस्य व्याकुलत्वात्
कथं जीवस्यापि दुःखित्वमित्याशङ्क्य परिहरति । अनुज्ञापरिहारो विधि-
निषेधो जीवस्य देहसम्बन्धात् या देहो यदा मृहीतस्तत्कृणौ । यथा
शवाग्निश्चण्डालभाण्डस्यमुदकं तद्वृटादिश्च परिह्रियते एवमुत्कृष्टं परि-
मुच्यते । तथा जीवोऽपि देहसम्बन्धकृतः सम्बन्धश्चाध्यात्मिको भगवत्-
कृतश्च । आध्यात्मिको ह्यज्ञानान्निवर्तते द्वितीयो भगवत्तैव । जीवन्मुक्ता-
नामपि व्यवहारदर्शनात् । श्रुतिस्तु भगवत्कृतसम्बन्धमेवाश्रयाग्नि-
होत्रादिकं विधत्ते । अग्राया विद्यां स्वज्ञानञ्च बंधयन्ती कर्म्मणि न
विदध्यात् । शाब्दज्ञानस्य पूर्वमेव सिद्धत्वात् । कथं सिद्धवद् यावज्जीवं
विदध्यात् । न्यासोऽपि देहसम्बन्ध एव ॥

SANSKRIT.

GROUP E.

FIFTH PAPER.

*Candidates are required to give their answers in their own words
as far as practicable.*

The questions are of equal value.

Full marks—48.

FIRST HALF.

Examiner—PANDIT KAMAKHYANATH TARKABAGISA.

Answer ANY SIX of the following questions.

1. “पूर्वभावित्वे ह्ययोरेकतरस्य हाने अन्यतरयोगः” इति सूत्रेण कया
रीत्या प्रधानस्य जगत्कारणत्वं व्यवस्थापितं ? प्रधानस्य जगत्कारणत्वं

श्रुतिषिद्धं न वा? श्रुतिषिद्धञ्चेत् कया श्रुत्या सिद्धं? परमाणुकारणवादः प्रागभावकारणवादश्च कथं न सम्भवति? जगतोऽवस्थुत्वं केन सूत्रेण कया रीत्या निरसनीयम्?

2. प्रमाणसामान्यस्य प्रमाणविशेषाणाञ्च कानि लक्षणानि? प्रमाणस्य त्रैविध्ये पराभिमतानां उपमानाद्यपत्तभावसम्भवैतिद्यानामेतन्मते कस्मिन् कस्मिन् प्रमाणे कया रीत्याऽन्तर्भावः?

3. केन सूत्रेण कया रीत्या स्फोटोत्पत्तिशब्दनिराकरणं? तदनङ्गीकारे उत्तरोत्तरवर्णोच्चारणकाले पूर्वपूर्ववर्णनाशात् अनेकवर्णघटितपदेन कथं पदार्थोपस्थितिर्भवितुमर्हति? “पूर्वसिद्धमत्त्वस्याभिप्रायस्त्वितिनेव घटस्य” इति सूत्रात्प्रतिपाद्यं कया रीत्या केन सूत्रेण निराकृता भवति?

4. “जगत्सत्यत्वमदुष्टकारणजन्यत्वाद् बाधिकाभावात्” इति सूत्रस्य किं व्याख्यानं? एतत्सूत्रस्याख्यानावसरे “संक्षेपाद् जगदुच्यते” इत्यादि-सन्दर्भेण वृत्तिकृता यया रीत्या जगद्वर्णितं स। रीतिर्विशदीकृत्य प्रदर्शनीया।

5. “गतिश्रुतेश्च व्यापकत्वेऽप्युपाधियोगाद् भोगदेशकाललाभो व्योम-वत्” इत्येतत्सूत्रस्योक्त्यतः किं वीजं? सूत्रस्यास्य व्याख्यानं वृत्तिकारोक्तरीत्या विशदीकृत्य प्रदर्शनीयम्।

6. कोऽयं सत्कार्यवादः? असत्कार्यवादे च उत्पत्तनन्तरं कार्यस्य सत्त्वादुभयत्र वैलक्षण्यं कया रीत्या समर्थनीयं? सत्कार्यवादसाधनार्थं ये पञ्च हेतवः कारिकायां प्रदर्शिता भाष्योक्तरीत्या तेषां प्रत्येकादाहरणं प्रदर्श्य सत्कार्यवादे व्यवस्थापनीयः।

7. वीजविनाशनन्तरं अङ्कुरोत्पत्तिदर्शनात् वीजविनाशस्यैवाङ्कुरोत्प-त्तिकारणत्वं पुज्यते, तदनुक्ता सत्कार्यवादव्यवस्थापयितुः साङ्ख्यदर्शन-प्रयत्नैरभिप्रायं वर्णयित्वा यया कारिकाया अव्यक्तादिव्यतिरिक्तः पुरुषः साधितः यया च कारिकाया पुरुषबहुत्वं साधितं तत्तत्कारिकाद्वयस्य तात्पर्यं भाष्यप्रदर्शितरीत्योपवर्णनीयम्।

8. का अष्टौ सिद्धयः? तासां कानि स्वरूपानि? तासां शास्त्रान्तरे कानि सञ्ज्ञान्तराणि निर्दिष्टानि? पूर्वोऽङ्कुरोत्पत्तिविध इत्यत्र पूर्वपक्षेन कासां परामर्शः। तासाञ्च कया रीत्या अङ्कुरसादृश्यं? निवारक इत्यनुक्ता अङ्कुरत्वोत्कीर्तने ग्रन्थकर्तुः कोऽभिप्रायः?

SECOND HALF.

Examiner—BABU KOKILESWAR BHATTACHARYYA, M.A.

Full marks—52.

1. State the arguments employed by *Iswar Krishna* in favour of the distinct existence of **पुरुष**, and briefly discuss each of these arguments. 10

2. Discuss the validity of the following argument :—
“There is no genus (**जाति**), as it is nothing but similarity (**सादृश्य**) what we apprehend in different individuals.” 10

3. Explain the Shankhya theory of *Causality*. 8

Or,

Explain the term **सहस्र**. Is **सहस्र** the same principle as the **हिरण्यगर्भ** of the Vedantists ?

4. Translate into English *any two* of the following extracts :—

(a) न च तौरप्रवृत्तरपि ईश्वराधिष्ठाननिबन्धनत्वेन साध्यत्वान्न साध्येन व्यभिचार इति साम्प्रतं, प्रेक्षावत्प्रवृत्तेः स्वार्थकारण्याभ्यां व्याप्तत्वात् । ते च जगत्सर्गात् व्यावर्तमाने प्रेक्षावत्प्रवृत्तिपूर्वकत्वमपि वारयति । न हि श्रवाप्तकलेष्वित्यस्य भगवतो जगत्सृजतः किमप्यभिलषितं भवति, नापि कारण्यादस्य सर्गां प्रवृत्तिः, प्राक् सर्गात् जीवानामिन्द्रियशरीरविषयानुत्पत्तो दुःखाभावेन कस्य प्रहायेच्छायात् ? 12

(b) आत्मा व्यापको, नास्य धर्मादिष्वन्वो, नापि ज्ञानं ? किन्तु शरीरावच्छेदेन मरुद्भ्रियोगवज्जीवसम्बन्धेन मनोयोगात् जीवात्मेयुच्यते । मनसा अत्रिनाभूता प्रकृतिरिति प्राकृतधर्माधर्मज्ञानाज्ञानदुःखदुःखाद्यहङ्कारेन्द्रिय-तद्विषयजन्मादिमानि च लक्ष्यते । सात्त्विकांशेन प्रकृतेः स्वच्छत्वात् तत्प्रतिविम्बित आत्मा प्रकृतिकर्तृत्वादिकमात्मन्यभिमन्यते । 12

(c) कश्चिद्रूपो मृगयां गतो वने सुन्दरीं कन्यामश्नियत् । तामपृच्छत् का त्वमिति । सा प्राह राजदुहिताहं । राजा प्राह मां भजस्व । सा प्राह दादं, किन्तु समयं कुरु, त्वया जलं मम न दर्शनोयमिति । एवमस्त्वित्युक्त्वा तस्याः पाणिं जगाह । एवं गते काले त्रीदयायासिता कुत्र जलमिति राजानं पप्रच्छ । राजापि सम्भ्रमात् समयं विस्मृत्य जलमदर्शयत् । 12

SANSKRIT.

GROUP E.

SIXTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiner—BABU DHIRESHCHANDRA ACHARYYA, M.A., B.L.

Answer any FIVE of the following.

एकोऽद्वितीय इति वेदवचांसि पुंसि
सर्वाभिमानविनिवर्तनतोऽस्य मुक्तेः ।
वैधर्म्यलक्षणभिदा विग्रहं वदन्ति ।
नाखण्डतां ख इव धर्मशतावरोधात् ॥

1. Explain the above stanza and critically establish the plurality of souls, referring to the appropriate sūtras. 15

2. What are the important points in which Vijnānabhikṣu differs from Vāchaspati Miśra in his exposition of the Sāṅkhya Philosophy? Critically estimate the value of each exposition. 15

3. Explain according to Vijnānabhikṣu the following sūtras:— 15

(i) आङ्गुल्यादभेदतो वा गुणसामान्यादेस्तत्सिद्धिः प्रधानव्यप-
देशाद्वा ।

(ii) तत्कर्माजितत्वात् तदर्थमभिचेष्टा लोकवत् ।

(iii) समदशेकं लिङ्गम् ।

(iv) उभयत्राप्यन्यासिद्धेर्न प्रत्यक्षमनुमानं वा ।

4. Explain the Sāṅkhya theory of error (व्याप्तिवाद) and show the untenability of the rival theories. 15

5. What are the Tusṭis? Quote and explain according to Vāchaspati Miśra the kārikā which treats of them. How does Vijnānabhikṣu criticise him? Is the criticism justifiable? 15

6. Explain the following kārikās, according to Vāchaspati Miśra:— 15

(i) भेदानां परिमाणात् समन्वयाच्छक्तिः प्रवृत्तश्च ॥

कारणकार्यविभागादविभागाद्वैश्वरूपस्य ॥

(ii) सङ्घातपरार्थत्वात् त्रिगुणादिविपर्ययादधिष्ठानात् ।

पुरुषोऽस्ति भोक्तृभावात् जैवल्यार्थं प्रवृत्तश्च ॥

7. तत्र सामान्यतः सिद्धो जानेऽहमित्थीबलात् ।
द्रष्टातो नित्यविभवादिधर्मैरेव च साध्यते ॥

Show how Vijnānabhikṣu proves the attributes of the soul referred to in the above stanza, in the Sāṅkhyasāra.

SECOND HALF.

Examiner—BABU ANANTAPRASAD BANERJEE, M.A.

Translate into idiomatic Sanskrit any *two* of the following extracts:— 25

(a) Self consciousness is egoism. Thence proceeds a two-fold creation, the eleven-fold set and the five elemental rudiments. From modified egoism originates the class of eleven imbued with goodness; from egoism as the source of the elements originate the rudimentary elements, and these are affected by darkness; but it is only from egoism as affected by activity that the one and the other rise. The intellectual organs are the eyes, the ears, the nose, the tongue, and the skin; those of action are the voice, feet, hands, arms, and the organ of generation. In this set is mind, which has the character of each; it determines, and it is an organ, like the other ten, from having a common property with them.

(b) As one single man supports a variety of characters, through the force of association,—being, through association with his beloved, a lover; through association with one indifferent, indifferent; and, through association with some other, something other,—so the Mind, also, through association with the organ of vision, or any other, becomes various, from its becoming one with the organ of vision, or any other; by its being, thereby, distinguished by the modification of seeing, or the like. The argument in support of this is that—by reason of the varieties of transformation of which the Qualities are susceptible, there is a diversity of their product, the Mind, according to circumstances.

(c) Nor can we say, with the Vedāntin, that the world is an illusory emanation from the one existent Brahman, because we have no contradictory evidence to preclude by its superior validity the *primā facie* belief that the external world is real, as we have in the case of mistaking a rope for a snake, where a closer inspection will discover the error; and again, where the subject and the attributed nature are so dissimilar as the pure intelligent Brahman and the unintelligent creation, we can no more allow the supposed attribution to be possible than in the case of gold and silver which no one mistakes for each other. Hence we conclude that an effect which is composed of happiness, misery, and stupidity, must imply a cause similarly composed.

SANSKRIT.

GROUP E.

SEVENTH PAPER.

FIRST HALF.

Examiner—MAHAMAHOPADHYAYA LAKSHMAN SASTRI.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

Full marks—50.

Answer any FIVE.

उल्लिखितानां मध्ये पञ्चप्रश्नाः समाधेयाः ।

1. योगस्य किं लक्षणं दर्शितम् ?
2. सम्प्रज्ञातसमाधेः स्वरूपं तद्देशाश्च प्रदर्शनीयाः ।
3. सवितर्कनिर्वितर्कयोः को भेदः ?
4. यत्तन्निःसत्तासत्तं निस्सन्निरसदित्यादिभाष्यं भिन्नूक्तरीत्या सोपपृम्भं व्याख्यायताम् ।

5. भिन्नभूते परस्परप्रतिविम्बः किमर्थमङ्गीक्रियते तदुच्यताम् ।
6. भोजराजेन सर्वेषां दर्शनकाराणां मते मुक्तेः कौदृशं स्वरूपं प्रदर्शितम् ?
7. क्रियायोगः कः किं च तस्य प्रयोजनम् ?
8. 'वस्तुषाम्ये चित्तभेदात्तयोर्विविक्तः पन्थाः' अस्य सूत्रस्य कौदृशं व्याख्यानं वार्तिककृद्भिः प्रदर्शितम् ?
9. परिणामाः कतिविधाः प्रदर्शितास्तदङ्गीकारस्य वा किम्ययोजनम् ?
10. सर्वभूतसत्त्वज्ञानं केनोपायेन भवति ?

SECOND HALF.

Examiner—BABU. MURALIDHAR BANERJEE, M.A.

The figures in the margin indicate full marks.

1. Explain the fundamental metaphysical differences, if any, 9
between the Sankhya and the Yōga systems.

2. How does Iswara, according to Patanjali, differ from other liberated souls ? 8

Or,

Does the conception of Iswara as formed by Patanjali involve any self-contradiction ? How are the unlimited knowledge and power of Iswara consistent with his being eternally liberated ?

3. How does Vyāsa show that sleep is one of the functions of the mind ? In what respect does Yōga differ from sleep ? 8

Or,

Explain the functions of the Purusha and Chitta involved in the perception of an external object according to Bhōja and Vijnana Bhukshu. Does the consciousness of the object of perception belong to, or reside in, the Purusha or the Chitta ?

4. Translate the following extract into English :—

25

आदेतदसति बाधकेऽनुभवोऽवयविनं व्यवस्थापयेत् । अस्ति च बाधकं यत् सत् तत् सर्वमनवयवं यथा विज्ञानम्, सच्च गोघटादीनि स्वभावहेतुः । सत्त्वं हि विरुद्धधर्मसंसर्गरहितत्वेन व्याप्तम्, तद्विरुद्धश्च विरुद्धधर्मसंसर्गः सावयव उपलभ्यमानो व्यापकविरुद्धोपलब्ध्या सत्त्वमपि निवर्तयति । अस्ति चावयविनि तद्देशत्वात्तद्देशत्वात्तत्त्वाना-वृत्तत्वरक्तत्वारक्तत्वचलत्वाचलत्वलक्षणे विरुद्धधर्मसंसर्ग इत्याह — यस्य पुनरिति । अयमभिप्रायः — अनुभवसिद्धं सत्त्वं हेतुः क्रियते यत्किंल पांशुलपादुको हलिकोऽपि प्रतिपद्यते, अन्यद् वाऽनुभवसिद्धात् । तत्रान्यदसिद्धत्वादहेतुः । अनुभवसिद्धं तु घटादीनां सत्त्वमर्थक्रिया-कारित्वरूपं न स्थूलादन्यत् । सोऽयं हेतुः स्थूलत्वमपाकुर्वन्नात्मानमेव व्याहन्ति । ननु न स्थूलत्वमेव सत्त्वम्, अपि त्वसतो व्यावृत्तिः ; अस्थौल्यव्यावृत्तिश्च स्थौल्यम्, व्यावर्त्यभेदाच्च व्यावृत्तयो भिद्यन्ते, अतः स्थौल्यभावेऽपि न सत्त्वव्यावृत्तिः अन्यत्वात् । भवतु वा व्यावृत्तिभेदा-दवसायविषयभेदः, यत्पूर्वकास्त्ववसायास्तस्यानुभवस्याविकल्पास्य प्रमाणस्य का विषय इति निरूपयतु भवान् । रूपपरमाणवो निरन्तरो-त्पादा अगृहीतपरमसूक्ष्मतत्त्वा इति चेत् । हन्तेते गन्धरसस्पर्शपरमाणु-भिरन्तरिता न निरन्तराः । तस्मादन्तरालाग्रह एकघनवनप्रत्ययवत् परमाणुवालम्बनः सन्नयं विकल्पो मिथ्येति तत्पुनरविकल्पा न पारम्पर्येणापि वस्तुप्रतिवद्धा इति कुतस्तदवसितस्य सत्त्वस्यानवयवत्व-साधकत्वम् । तस्मादविकल्पास्य प्रत्यक्षस्य प्रामाण्यमिच्छता तदनुभूय-मानस्थौल्यस्यैव सत्त्वमविकल्पावसेयसकामेनाप्यभ्युपेयम् । तथा च तद्बाधमानं सत्त्वमात्मानमेवापवाधेत । परमसूक्ष्माः परमाणवो विजातीयपरमाण्वनन्तरिता अनुभवविषया इति व्याहृतमङ्गीकरणम् ।

SANSKRIT.

GROUP E.

EIGHTH PAPER.

FIRST HALF.

Examiner—PANDIT SIVAKUMAR TARKADARSANATIRTHA.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. अहंकारे निर्मूले जगतो निर्मूलत्वं वाशिष्ठमायणोक्तं 15
युक्ता व्यवस्थाप्यताम् । किन्तावत् वाशिष्ठसम्मतं जगतो मूलकारणम् ?
जगतः सत्यत्वं कया युक्ता निराकृतं वाशिष्ठे ? वाशिष्ठसमते शशशृङ्गा-
दिवत् जगतोऽलीकत्वे तस्य कारणवर्णनं कथं सङ्गच्छते ? मिथ्यात्वे
वा किन्तु मिथ्यात्वम् ?

2. “शून्यमात्रं यथा व्योम स्यन्दमात्रं यथाऽनिलः । 15

जलमात्रं यथोष्मर्गादि सखिन्मात्रं यथा जगत् ॥”

इति वाशिष्ठवचनोक्तं जगतः सखिन्मात्रत्वं युक्ता व्यव-
स्थाप्यताम् । जगतः सखिन्मात्रत्वे विज्ञानमात्रवादिबौद्धमताद्
वाशिष्ठमतस्य को विशेषः ?

3. अधोनिबद्धयोः “क, ख,” चिह्नितप्रश्नयोः कस्यचिदेकस्य 10
उत्तरं विधेयताम् ।

क । योऽसौ प्रसरति व्यर्थं चेत्याभावाद्वा सा सती ।

असत् कथं प्रसरति बन्ध्यापुत्रः क्व नृत्यति ॥”

इत्युक्ता कीदृशं तत्त्वं समर्थितं वाशिष्ठेन ?

ख । कति विधा देहा वर्णिता वाशिष्ठेन ? तत्र चातिब्राह्मिक-
देहस्य किं स्वरूपं प्रदर्शितम् ? तत्तत्त्वं सप्रमाणमुल्लिख्यताम् ।

4. अधोलिखितयोः “क, ख,” चिह्नितप्रश्नयोः कस्यचिदेकस्य
उत्तरं विधेयताम् ।

क । “निर्वाणो नास्ति दृश्यादि दृश्यादौ नास्ति निर्वृतिः”

इत्युक्ता निर्वाणस्य कीदृशं स्वरूपं प्रकटीकृतं वाशिष्ठेन ?

ख । वक्तृबोद्धव्यनिर्देशपूर्वकं अधोलिखितपद्यानां यत्कि-
ञ्चित् द्वयं व्याख्याय तात्पर्यमुपवर्णयताम्, —

“मातृमेय प्रमाणादि देशकालो दिशादि च ।

भावाभावविवर्त्तादि शिवपङ्कमयात्मकम् ॥ १ ॥”

“वेदनं सति संवेद्य सर्गादावेव वेद्यधृक् ।

नोत्पन्नो विद्यते नैव तस्मात् किं क्वेव वेदनम् ॥ २ ॥”

“स्यन्दात्मनि विकल्पांशे पतिता सत्यरूपिणि ।

सम्बित् प्रसरति आन्तौ तैलविन्दुरिवाम्बुधि ॥ ३ ॥”

SECOND HALF.

Examiner—RAI RAJENDRACHANDRA SASTRI, BAHADUR, M.A.

Answer any FIVE of the first six questions, and the seventh.

1. Describe the four schools of Buddhist philosophy, dwelling 5
specially on the characteristic tenets of each school.

2. Discuss

“कार्यकारणभावाद् वा स्वभावाद् वा नियामकात् ।

अविनाभावनियमो दर्शनान्न न दर्शनात् ।”

3. Explain and illustrate :—

5

‘परार्थानुमानवाक्यैकदेशोऽवयवः, स पञ्चविधः प्रतिज्ञा-
हेतूदाहरणोपनयनिगमनभेदात्’ ।

4. Discuss the various theories of ‘सुक्ति’ mentioned in your text. 5

5. Sum up in your own language, in Sanskrit, the arguments in 5
support of the doctrine of स्फोट.

6. Give in your language, either in English or in Sanskrit, the 5
outlines of the Ramanuja School of Philosophy.

7. Translate into Sanskrit :—

25

“It may be sweet when on the great sea the winds trouble its waters to behold from land another’s deep distress; not that it is a pleasure and delight that any should be afflicted, but because it is sweet to see from what evils you are yourself exempt. It may be sweet also to look upon the mighty struggles of war arrayed along the plains without showing yourself in the danger. But nothing is more sweet than to hold the lofty and serene positions, well fortified by the learning of the wise, from which you may look down upon others, and see them wandering all abroad, and going astray in their search for the path of life; see the contest among them of intellect, of rivalry, of birth, the striving night and day with surpassing effort

to struggle up to the summit of power, and be masters of the world. O miserable minds of men! Why will you not see that nature craves for itself nothing more than that the man from whose body pain holds aloof, should in mind enjoy a feeling of pleasure, exempt from care and fear ?”

SANSKRIT.

GROUP G.

FIFTH PAPER.

FIRST HALF.

Examiner—MAHAMAHOPADHYAYA GURUCHARAN TARKADAR-SANATIRTHA.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

पञ्चानामेवोत्तरं कार्यम् ।

1. षट्स्वास्तिकदर्शनेषु कस्य प्राधान्यं कया युक्तया श्रीमद्भगो 15
रोचते ? तदध्ययनस्य च किं प्रयोजनम् ?
2. सर्वप्रामास्तिकदर्शनिकानां कस्मिंश्चित् पदार्थे ऐकमत्यं 15
वर्तते न वा ? वर्तते चेत् स कः ? तत्र च किं प्रमाणम् ?
3. सदसद्विवर्तकार्यवादाः कीदृशाः ? तेषु च कया युक्तया को 15
वादः सांख्यानं सम्मतः ?
4. को योगः ? कतिविधश्च सः ? तस्य को हेतुः किञ्च 15
प्रयोजनम् ?
5. योगभाष्यकारमते अन्तःकरणस्य कीदृशं परिमाणं ? तत्र च 15
भाष्यकृतसम्मता का युक्तिः ?
6. सांख्यपातञ्जलयोः परस्परं कस्मिन् मतभेदः ? तत्र च को 15
हेतुः ?
7. “तस्य चतुरविद्या”, “सुषुप्ताद्यसात्त्वित्वं”, मुक्तात्मनः 15
प्रशंसा उपासादिद्वयं वा” सूत्राख्येयानि सोपपद्यन्तं व्याख्यायन्ताम् ।

SECOND HALF.

Examiner—BABU PASUPATINATH BHATTACHARYYA, M.A.

Translate into English any two of the following passages :—

25

(1) कुत एष संप्रत्ययः, सुखादिभ्योऽन्यस्तद्दानस्तीति ? न हि सुखादिप्रत्याख्यानेन तस्य स्वरूपमुपलभामहे । तस्माच्छ्रवणाद्यवशो नास्ति । अथोच्यते, तेन विना कस्य सुखादय इति ? न कस्यचिदपीति वक्ष्यामः । न हि यो य उपलभ्यते, तस्य तस्य सम्बन्धिना भवितव्यम् । यस्य सम्बन्धोऽप्युपलभ्यते, सम्बन्धी च, तस्यायं सम्बन्धीति गम्यते । न हि चन्द्रमसम् आदित्यं उपलभ्य सम्बन्धान्वेषणा भवति कस्यायमिति । न कस्यचिदपीत्यवधार्यते । तस्मान्न सुखादिभ्योऽन्यस्तद्दानस्तीति । अथ उपलब्धस्य अवश्यं कल्पयितव्यः सम्बन्धी भवति ; तत आत्मानमपि अनेन प्रकारेण उपलभ्य, कस्यायमिति सम्बन्धन्तरम् अन्विष्येम ।

(2) इच्छया आत्मानमुपलभामहे । कथमिति ? उपलब्धपूर्वं हि अभिप्रेते भवतीच्छा । यथा मेरुमुत्तरेण यानि अस्मज्जातीयैरुपलब्धपूर्वार्थिणि स्वादूनि वृक्षफलानि, न तानि प्रति अस्माकम् इच्छा भवति । नो खल्वन्येन पुरुषेण उपलब्धेऽपि विषयेऽन्यस्य उपलब्धुरिच्छा भवति । भवति च अन्यदुपलब्धे अन्यदुपलब्धुरिच्छा । तेन उपलम्भनेन समानकर्तृका सा इत्यवगच्छामः । यदि विज्ञानमात्रमेवेदम् उपलम्भकमभविष्यत्, प्रत्यस्ते तस्मिन् कस्य अपरेदुपलब्धुरिच्छा अभविष्यत् ? अथ नु विज्ञानादन्यो विज्ञाता नित्यः, तत एकस्मिन्नहनि य एव उपलब्ध्या अपरेदुपलब्धुः स एव एषिष्यतीति । इतरथा द्वीच्छा नोपपन्ना स्यात् ।

(3) अथाप्यस्मिन्नर्थब्राह्मणं भवति ; स वा अयमात्मेति प्रकृत्य आसनन्ति, अश्रीर्या न हि शीर्यते इति, तथा, अविनाशो वा अरे अयमात्मा अनुच्छित्तिधर्मा इति । विनश्वरं च विज्ञानम् । तस्माद् विनश्वरादन्यः स इत्यवगच्छामः । न च शक्यमेवमवगन्तुं—यथोपलभ्यन्ते अर्थाः, न तथा भवन्तीति, यथा तु खलु नोपलभ्यन्ते तथा भवन्तीति । तथा हि सति, शशो नास्ति, शशस्य विघातमस्तीत्यवगम्यते । न चाहमन्ययो व्यामोह इति शक्यते वक्तुम्, बाधकप्रत्ययाभावात् । तस्मात् सुखादिभ्यो व्यतिरिक्तोऽस्ति । एवञ्चेत् स एव यज्ञायुधौ इति व्यपदिश्यते ।

SANSKRIT.

GROUP G.

SIXTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiner—PANDIT KAMAKHYANATH TARKABAGISA.

1. “समानानेकधर्म्मोपपत्तेर्विप्रतिपत्तेरुपलब्धानुपलब्धव्यवस्था- 15
तश्च विशेषापेक्षो विमर्शः संशयः” इति सूत्रस्य कोनांशेन कौदृशं संशय-
सामान्यलक्षणं? केन कोनांशेन कौदृशानि संशयविशेषलक्षणानि च
वृत्तिकारेण व्यवस्थापितानि? तन्मते विशेषापेक्ष इत्यस्य संशयलक्षण-
घटकत्वमस्ति न वा? नास्ति चेत् सूत्रे तन्निर्देशस्य किं फलं? भाष्य-
कारेण कया युक्तम् तस्य लक्षणघटकत्वसुरीकृतं? का उपलब्धव्यवस्था,
का चानुपलब्धव्यवस्था? तयोः पृथक्करणत्वं वृत्तिकारसम्मतं न वा?
न सम्मतञ्चेत् सूत्रे तदुल्लेखेन को विशेषः परिप्राप्तः? “उपलब्ध-
नुपलब्धव्यवस्थातश्च” इत्यस्य भाष्यकारेण किं तात्पर्यमुपवर्णितं?
कौदृशस्या उदाहरणद्वयं प्रदर्शितं? संशयसूत्रव्याख्याने भाष्यकारेण
सह वृत्तिकारस्य कुत्रचिन् मतभेदो वर्तते न वा? वर्तते चेत् को
मतभेदः? किं मतं कया युक्तम् तुभ्यं रोचते?

2. वादलक्षणसूत्रे प्रमाणतर्कसाधनोपालम्भ इत्यस्य यथाश्रुतार्थ- 10
परत्वे उभयत्रापि प्रमाणतर्कसद्भावस्यावश्यकतया कोटिद्वयस्यापि
सिद्धिर्निष्पन्ना स्यात्, अतस्तस्य कौदृशनिष्कृष्टार्थपरत्वं वक्तव्यं?
अवयवेषु प्रमाणतर्कान्तर्भावे पृथक्प्रमाणतर्कौल्लेखस्य किं फलमुक्तं
भाष्यकारेण? वादे पञ्चावयवोपपन्नत्वस्य प्रायिकत्वं कया युक्तम्
व्यवस्थापितं वृत्तिकारेण ।

3. “साध्यत्वादवयविनि सन्देहः” इति सूत्रस्य यथाश्रुतार्थः 10
संगच्छते न वा? न संगच्छते चेत् तत्र किं कारणं? को वा
निष्कृष्टार्थः? अतिरिक्तावयवसाधने कौदृशो विप्रतिपत्तिर्वक्तव्या?

विप्रतिपत्तो केषां विधिकोटिः, केषांस्वा निषेधकोटिः ? अतिरिक्ता-
वयविविधप्रतिकूलपूर्वपक्षनिरासार्थं कौटुक सिद्धान्तः समादरणीयः ?

4. साधर्म्यसमाया वैधर्म्यसमायाश्च जातेर्लक्षणं तयोरसदुत्तरत्वे
वीजञ्च भाष्यकारोक्तवृत्तिकारोक्तरीत्या विशदीकृत्य प्रदर्शनीयम् ।

5. “नित्यद्रव्यवृत्तयो ह्यन्ता विशेषाः, ते च खल्वत्यन्तव्यावृत्ति-
बुद्धिचेतुत्वाद् विशेषा एव विशेषाः” अनेन प्रशस्तपादकृतभाष्यसन्दर्भेण
कौटुकं विशेषलक्षणं परिप्राप्तं ? विशेषा इति बहुवचननिर्देशस्य किं
फलं ? ते चेत्यादिसन्दर्भेण कौटुकी आशङ्का निराकृता भवति ? सक्त-
सन्दर्भस्य किं कन्दलीकारसम्मतं व्याख्यानं ? परममहत्परिमाणे विशेष-
लक्षणं कथं नातिव्याप्तं ? विशेषपदार्थानङ्गीकारे का हानिः ? विशेषस्य
निर्दोषं लक्षणं किमपि कन्दलीकारेण प्रदर्शितं न वा ?

6. “अयुतसिद्धानामाध्याध्याधारभूतानां यः सम्बन्ध इह
प्रत्ययहेतुः समवायः” इति भाष्यसन्दर्भे अयुतसिद्धा इत्यस्य कोऽर्थः ?
अनेन विशेषण्येन आध्याध्याधारभूतानामिति विशेषण्येन च कस्य कस्य
व्यवच्छेदः ? उक्तभाष्यसन्दर्भेण कौटुकं समवायलक्षणं वक्तव्यं ? सम-
वायसाधने च किं प्रमाणं ? तत्प्रमाणञ्च स्वरूपेण कथं न सिद्ध-
साधनम् ?

7. प्रशस्तपादेन यः सृष्टिसंहारक्रमः प्रदर्शितः या च आकाशानु-
मानप्रणाली प्रदर्शिता, कन्दलीकारोक्तरीत्या तयोस्तात्पर्यं विशदी-
कृत्योपवर्णनीयम् ।

8. शरीरेन्द्रियविषया येन सूत्रेण लक्षिता, वृत्तादीनां शरीरत्वं
प्राणादीनाञ्च पार्थिवत्वादिकं येन येन सूत्रेण साधितं तानि तानि
सूत्राण्युद्धृत्य व्याख्यायानि ।

SECOND HALF.

Examiner—MAHAMAHOPADHYAYA DR. SATISCHANDRA
VIDYABHUSHANA, M.A., PH.D.

Translate two of the following extracts into Sanskrit :—

(a) *Manas* or mind is considered as *anu* or an atom, and the question has been fully discussed how *manas* being *anu*, can be united with *ātman*, which is *vibhu* or infinitely great. If, with the *Mīmāṃsakas*, it were admitted that the two could unite, then there could never be any cessation of knowledge, such as we know, there is in sleep; for the union of *ātman* and *manas*, if once effected, would be indissoluble. It is held by the *Naiyāyikas* that when *manas*

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enters a particular region of the body called *puritat*, the effect of the union of *ātman* and *manas* is neutralised, and sleep ensues.

(b) Kauśika said to his friend: "Why do you look down upon the teachings of our Buddha so much? The *Vaiśeṣika sūtra* is so defective that it is by no means to be compared with the teachings of Buddha. The *sūtra* cannot properly explain what an object is, and misunderstands causality." The friend asked him: "For what reason can you assert that the *Vaiśeṣika sūtra* does not properly explain causality? The *sūtra* explains that broken potsherds are the cause of a pot." Kauśika answered: "If the *Vaiśeṣika sūtra* really assert it, the assertion is nonsense. Broken potsherds are by no means the cause of a pot."

(c) In almost all the Hindu systems of philosophy, as these are classified by the most recent authorities, indications are to be found of a more or less developed analysis of the process or method of reasoning, and therefore of a certain amount of logical theory. In two systems in particular the logical element is the most prominent feature. The *Nyāya*, or the logical doctrine of Gotama, is in a very special sense the Hindu Logic, while in the *Vaiśeṣika*, or atomist system of Kaṇāda, there are many expansions of or additions to the *Nyāya*, though the prevailing interest is not logical.

SANSKRIT.

GROUP G.

SEVENTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiner—PANDIT SAKALNARAYAN SARMA.

(सर्वेषु प्रश्नेषु कस्योरेकतरस्यैवोत्तरं देयम्) ।

1. भाष्यरीत्या व्याख्यायन्तामेतानि सूत्राणि ।

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(क) अन्तस्तद्धर्मोपदेशात् । कल्पनोपदेशाच्च सध्वादिवद-
विरोधः । असति प्रतिज्ञोपरोधो यौगपद्यमन्यथा ।

(ख) तत्तु समन्वयात् । उत्पत्तिसम्भवात् । अन्तवृत्त्व-
मसर्वज्ञता वा ।

2. (क) किं लक्षणं ब्रह्म ? तच्च किं प्रमाणकम् ? प्राणादिशब्दैः
कस्य परामर्शः ? अध्यासशब्दस्य कोऽर्थः ? स सत्योऽसत्यो वा ? तत्र
का युक्तिः ?

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(ख) जैनानां मते कीदृशः सप्तभङ्गीनयः । तस्य किं स्वरूपम् ? कथं तस्य खण्डनं श्रीमद्भाष्यकारैः कृतम् ?

3. निम्नलिखितो भाष्यांशः प्रकरणनिर्देशपूर्वकं सुस्पष्टं व्याख्येयः । 10

(क) “नन्विह जिज्ञासावैलक्षण्यमुक्तम् । कर्मकाण्डे भव्यो धर्मी जिज्ञासुः । इह तु भूतं नित्यनिर्वृतं ब्रह्म जिज्ञासुम् ” ।

(ख) “रूपवेदनाविज्ञानसंज्ञासंस्कारसंज्ञकाः पञ्चकल्पाः, तेऽप्यध्यात्मं सर्वव्यवहारास्पदभावेन संहन्यन्ते ” ।

4. (क) ईश्वर-प्राप्तौ को ? तत्र व्यष्टिसमष्टि कल्पना भवति न वा ? ब्रह्मणः कथमुपादानत्वं निमित्तत्वञ्च ? कियदवयवकानि लिङ्गशरीराणि ? 10

(ख) कस्य पञ्चीकरणप्रकारः ? किं तत्र प्रमाणम् ? कौ विश्ववैश्वानरो ?

5. (क) तत्त्वमसीति वाक्यस्य को विस्तृतोऽर्थः ? तत्र लक्षणा विद्यते न वा ? 10

(ख) निर्विकल्पसमाधेः किं स्वरूपम्, तस्य कान्यङ्गानि ? तेषां किं प्रयोजनम् ?

6. (क) गीतायाः प्रत्यध्यायेषु योगशब्दोऽस्ति, तत्र व्याख्येयमहर्षेः किं तात्पर्यम् । गीतायां निखिलतन्त्रसिद्धान्तसंग्रहः, आहोस्विद् वेदान्तसम्मतं किञ्चिदुत्कृष्टसिद्धान्तप्रदर्शनमस्तीति विचारः कर्तव्यः । 10

(ख) गीतोपदेशो वैराग्यापपादनेन केवलं युद्धप्रवृत्तिकारकोऽथवा परमपुरुषार्थसाधकः । अत्र स्वमतं सयुक्तिकं प्रकटीकरणीयम् ।

7. (क) सविस्तरं व्याख्यायन्तामेते श्लोकाः, — 15

अव्यक्तादीनि भूतानि व्यक्तमध्यानि भारत ।

अव्यक्तनिधनान्तेव तत्र का परिदेवना ॥

कर्मणो ह्यपि बोद्धव्यं बोद्धव्यञ्च विकर्मणः ।

अकर्मणश्च बोद्धव्यं गहना कर्मणो गतिः ॥

नेते सती पार्थ जानन् योगी मुह्यति कश्चन ।

तस्मात् सर्वेषु कालेषु योगयुक्तो भवार्जुन ॥

(ख) परं ब्रह्म परं धाम पवित्रं परमं भवान् ।
 पुरुषं ब्राह्मणं दिव्यमादिदेवमजं विभुम् ॥
 ऊर्ध्वमुखमधःशास्त्रमश्नत्यं प्राहुरव्ययम् ।
 हृन्तांसि यद्य पथानि यस्तं वेद स वेदवित् ॥
 ओ तत्सर्विति निर्देशो ब्रह्मणस्त्रिविधः स्मृतः ।
 ब्राह्मणास्तेन वेदाश्च यज्ञाश्च विहिताः पुरा ॥
 इति ।

SECOND HALF.

Examiner—MAHAMAHOPADHYAYA DR. GANGANATH JHA,
 M.A., D.LITT.

Translate the following into Sanskrit :—

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A.

“If absorption into the Divine in after-life be the creed of some people, let them allow us many existences of individuality before this absorption; since one short-lived individuality seems to be too short a preparation for so mighty a union. There is an intimate connection between the human and the divine, and each individual will has a spiritual and eternal significance with relation to other individual wills, as well as to the Supreme and Eternal Will. The righteous man has a constant feeling of spiritual harmony existing between ourselves and the outward visible universe, and of the actual Immanence of God in the infinitesimal atom as in the vastest system. If God were to withdraw himself for one single moment from this universe, everything would vanish into nothingness.”

B.

“With true joy the stars perform their shining,
 And the sea its moon-silvered roll;
 For self-poised they live; nor pine with noting
 All the fever of some differing soul.
 Bounded by themselves, and unregardful
 In what state God's other works may be,
 In their own tasks all their powers pouring,
 These attain the mighty life you see.”

SANSKRIT.

GROUP G.

EIGHTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

प्रथमार्धम् ।

FIRST HALF.

Examiner—DR. KUPPUSWAMY SASTRI.

Only SIX questions must be answered, i.e., THREE from each of the two parts in the First Half.

(A) PART I.

1. Elucidate the Mīmāṃsaka's theories of ज्ञानप्रामाण्य and व्याप्ति- 12½
ज्ञान, and discuss their epistemological adequacy and soundness.

Or,

Sketch succinctly the history of the *Mīmāṃsā* darsana, drawing attention to the distinctive features of the different Schools of Mīmāṃsā.

2. (a) प्राभाकराभिमतं विध्यर्थं सयुक्तिकं विशदयितुं निरस्यत । 12½
(b) 'सर्वत्रैव हि वाक्यार्थो लक्ष्य एवेति नः स्थितिः' ।

इति मीमांसकप्रतिद्वान्तं स्फुटयितुं समर्थयत ।

3. नित्यकाम्ययोर्वलक्षणं संग्रहेण प्रदर्श्य समुचितहेतुभिरुप- 12½
पादयत ।

4. प्रकरणस्यानयोरारुपकारकसन्निपत्योपकारकयोश्च स्वरूपं 12½
ब्रह्मबलं च विवेचयत ।

5. (a) पञ्चमाध्यायस्यारम्भणीयतां समर्थयत । 12½

- (b) प्राप्तवाधाप्राप्तबाधयोः, नियमपरिसंख्ययोश्च भेदं सम्यक्
प्रतिपादयत ।

6. (a) संग्रहेण व्याख्यात । 12½

परप्रकरणस्यानामङ्गलश्रुत्यादिभिस्त्रिभिः ।

ज्ञाते पुनश्च तैरेव संग्रहेण तद्विष्यते ॥

(b) उद्भाव्य समाधत्त ।

(1) स्थानात्प्रबलमपि प्रकरणं कथं न विकृतो प्राकृताङ्गानि
सुक्लीयात् ?

(2) जाग्रत्सु 'वैश्वदेवेन यजेत' इत्यादिषु कथं चतुर्था नामधेय-
निमित्तानां विभागः ।

(A) PART II.

1. "द्वा सुपर्णा सयुजा सखाया समानं वृत्तं परिस्रज्जाले । 12½
तयोरन्यः पिप्पलं स्वाद्वत्त्यनञ्जनोऽभिचाकशीति" इति वाक्यं
भाष्यकाराभिमतरीत्या व्याख्यायताम् ।

2. "यस्यामतं तस्य मतं मतं यस्य न वेद सः" । 12½

अत्रामतस्य मतत्वं मतस्यामतत्वं च कथं न विरुद्धम् ?

3. माण्डूक्योपनिषदि उपनिषदन्तरात् ब्रह्मस्वरूपनिरूपणे को 12½
विलक्षणः प्रकार आदृतः ?

4. कठश्रुतपाख्यानेन प्राथमिकेन कठोपनिषदः क उपयोगः ? 12½
उपनिषत्पदस्यावयवार्थः कः ? ब्रह्मविद्यापरमुपनिषत्पदमिति पक्षे
उपासनादिवाक्यानां कथमुपनिषत्त्वम् ?

5. शङ्करभगवत्पादसमतं ब्रह्मस्वरूपं कीदृशम् ? नेह नानास्ति 12½
किंचनेति प्रपञ्चमिष्यात्वं यद्वर्णितं तेनाद्वैतमतस्य क उपकारः ?
उपासनानां कर्मेणां च केषां च नोपनिषदि प्रतिपाद्यमानानामद्वैतमते
किं प्रयोजनम् ?

6. प्राणो ब्रह्म कं ब्रह्म खं ब्रह्मेति वाक्ये ब्रह्मत्रितयं विव- 12½
क्षितम् ? उतेकम् ? आद्ये कथमद्वैतमतोपपत्तिः ? द्वितीये किमर्थं
पृथगुपदेशः ?

द्वितीयार्धम् ।

SECOND HALF.

Examiner—VEDANTABISARAD N. T. ANANTAKRISHNA SASTRI.

Translate into English :—

25

(1) न ज्ञात्माऽऽनुक्तः कस्यचित्, स्वयं सिद्धत्वात् । न ज्ञात्मा-
त्मनः प्रमाणमपेक्ष्य सिद्धयति । तस्य हि प्रत्यक्षादिप्रमाणान्यप्रसिद्ध-
प्रमेयसिद्ध्य उपादीयन्ते । न ज्ञाकाशादयः पदार्थाः प्रमाणनिरपेक्षाः
स्वयं सिद्धाः केनचिदभ्युपगम्यन्ते । आत्मा तु प्रमाणादिव्यवहाराश्रय-

त्वात् प्रागेव प्रमाणादिव्यवहारात्सिद्धयति । न चेदृशस्य निराकरणं
संभवति । आगन्तुकं हि वस्तु निराक्रियते, न स्वरूपम्, य एव
निराकर्ता तदेव तस्य स्वरूपम् । न ह्यग्रेरोष्णार्माग्ना निराक्रियते ।
तथाऽहमेवेदानीं जानामि वर्तमानं वस्तु, अहमेवातीतमतीततरं
चाज्ञासिषम्, अहमेवानागतमनागतगततरं च ज्ञास्यामीत्यतीतानागत
वर्तमानभावेनान्यथा भवत्यपि ज्ञातव्ये न ज्ञातुरन्यथा भावोऽस्ति,
सर्वदा वर्तमानत्वात् । यथा भस्मीभवत्यपि देहे नात्मन उच्छेदो
वर्तमानस्वभावत्वात् । अन्यथास्वभावत्वं वा न संभावयितुं शक्यम् ।
एवमप्रत्याख्येयस्वभावत्वादेवाकार्यत्वमात्मनः, कार्यत्वं चाकाशस्य ।

- (2) नेवात्मनः प्रभुरयं निजलाभपूणी
मानं जनादविदुषः करुणो वृणीते ।
यद्यज्जहो भगवते विदधीत मानं
तच्चात्मने प्रतिमुखस्य यथा मुखश्रीः ॥
- (3) अहमर्थविनाशश्चेन्मोक्ष इत्यध्यवस्यति ।
अपसर्पदसौ मोक्षकथा प्रस्तावगन्धतः ॥
- (4) किं न तेन कृतं पातं चोरेणात्मापहारिणा ।
योऽन्यथा सन्तमात्मानमन्यथा प्रतिपद्यते ॥

SANSKRIT.

GROUP I.

FIFTH PAPER.

*Candidates are required to give their answers in their own words
as far as practicable.*

FIRST HALF.

Examiner—MAHAMAHOPADHYAYA DR. SATISCHANDRA VIDYA-
BHUSHANA, M.A., PH.D.

Full marks—70.

Answer any FIVE questions.

All the questions carry equal marks.

1. Translate two of the following extracts into English:—

- (a) निर्गत मञ्जरौकुञ्जादपश्यत् पुरतस्ततः ।
कन्ये नीलनिर्घोलन्यो स केचिद्धारलोचने ॥

कर्णिकापद्मरागाञ्जनाललीलायितवृष्टा ।
मनाञ्जधवलापादे तनीयोञ्जनरेखया ॥
हारिनेत्राञ्जलैर्मन्दमासतान्दोलनाकुलैः ।
सनाथांसयुगे रूपपताकापल्लवैरिव ॥

- (b) साधरा इव कान्ताभिः सनत्तत्रेव मन्त्रिभिः ।
सर्षिसंधेव विबुधैः सगन्धर्वव गायनैः ॥
नित्यसंकेतवसतिर्धनदस्य यमस्य च ।
एकं विहरणारण्यं दानस्य च भयस्य च ॥
क्षपास्यानस्थितस्तस्य राज्ञः शक्राधिकाश्रयः ।
कस्य वाचस्पतेर्वाचा वक्तुं कार्त्स्न्येन शक्यते ॥

- (c) दृढमनःपाणिपादैश्चचारुचरुवारिभिः ।
चरन्तं मण्डलैश्चित्रैर्लेघुचित्रस्थिरक्रमैः ॥
शोचित्यस्योचितां चर्यामलङ्कारमहद्भुतेः ।
अभिमानविभूतीनां नित्योत्सुकमनस्ययम् ॥
अलक्षितक्षिप्रपातं स सर्वोप्यनुस्रजः जनः ।
विचरन्तं तमेक्षिष्टु भित्तुमग्रे विरोधिनाम् ॥

2. Explain *two* of the following extracts in Sanskrit, with reference to their context, and adding notes where necessary :—

- (a) पीताम्बुर्लङ्घितोर्वीश्वत् कुम्भयोऽनरिवानयत् ।
तस्य प्रतापः प्रभवन् भुवनानि प्रपन्नताम् ॥
शुष्यत्तमालपत्राणि शीर्णताद्रीदलानि च ।
तत्सेनार्णवतीराणि चक्रैरिस्त्रीमुखानि च ॥
- (b) यावकाहारिणौ पादौ दधतीं कृच्छ्रचारिणौ ।
स्तनच्छद्ममुखं द्रष्टुं तपस्यन्ताविवान्वहम् ॥
भास्वद्विष्वाधरां कृष्णकेशीं सितकराननान् ।
हरिमयां शिवाकारां सर्वदेवमयीमिव ॥
- (c) न कश्यपेनोपकृतं न यत् संकर्षणेन वा ।
हेलया मण्डलेऽसुरिष्पन्तत् सुय्येन सुकर्मणा ॥
भूमेर्जलादुद्भूतं द्विजक्षेत्रे तजार्पणम् ।
सेतुबन्धोऽप्रमभिस्तोये यमनं कालियस्य च ॥

चतुर्थं सिद्धमिति यद्विष्णोः सत्कर्म जन्मसु ।
सुय्यस्य तत्पुण्यराशेरकस्मिन्नेव जन्मनि ॥

3. (a) Explain the term “Dāmara”; describe the part played by the Dāmaras in the history of Kashmir from the beginning of the twelfth century till the date of the completion of Kalhana’s chronicle.

(b) Trace the origin of the Karkota Dynasty and state the extent of Lalitāditya’s power with reference to the nations conquered by him.

4. (a) Discuss Mons. Troyer’s theory as regards the authorship of the Rājataranginī.

(b) Give an estimate of Kalhana’s character as a historian.

5. State the principal events in the reign of Samgrāmārāja and discuss the date of Toramāṇa, Laṅkhaṇa Narendraditya and Cippaṭa Jayāpīḍa Bhaṣpati.

6. Write notes on any seven of the following:—

Purāṇādhiṣṭhāna, Lohara, the Bhautta land, Diddāmaṭha, Maḍavarāja, Khaṣa, Khāri, Mummuni, Bilhaṇa, Pādāgra, Dvārapati, Rājānaka and Adhikaraṇa lokhaka.

7. What do you know of the last Hindu sovereign of Kashmir? When and how was the valley annexed to the Mogul Empire? Write all that you know about the political influence of the Tibetans in Kashmir.

SECOND HALF.

Examiner—PANDIT NIRANJAN PRASAD CHAKRABARTI, M.A.

Full marks—30.

1. Translate any two of the following passages into English:—

(a) अथ तत् श्रुत्वा जातोद्देश इव भदन्तः पुनरभ्यधात् “धौमन् न खलु कश्चिदेवंरूपो वृत्तान्तोऽस्मानभ्युपगतवान् अभोजनं हि वयमीदृशानां प्रिया-
स्थानोपायनानां भवताम्” इत्येवं भाषमाण एव तस्मिन् अकस्मादागत्यापरः
शमिनि वयसि वर्त्तमानः सम्भ्रान्तरूप इव पुरस्तादुपरिचिताञ्जलिर्जातकरुणः
प्रक्षरितचक्षुरभाषत—“भगवन् भदन्त महत्करुणं वर्त्तते । बालैव बलवद्ग-
सनाभिभूता भूतपूर्वापि कल्याणरूपा स्त्रीशोकावेशविशेषा वैश्वानरं विशति ।
समावयतु तामर्पितप्राणां भगवान् । अभ्युपपद्यतां समुचितैः समाश्वासनैः ।
अनुपगतपूर्वं कृमिकौटम्बपि दुःखितं दयाराशेरार्यस्य गोचरगतमिति”ति ।

(b) राजपुरुषेणाधिष्ठितश्च गत्वा स्वधाम धूममयानिव कृताश्रुपातान्,
अग्निमयानिव जनितदृढयदाहान्, विषमयानिव दत्तपूच्छावेगान्, महा-
पातकमयानिव उत्पादितघृणान्, क्षारमयानिव आनीतवेदनान् कतिचित्
कञ्जलानमृत्तान् । आचमंश्च चामरग्राहिणमादिदेश विज्ञायागच्छ कथमास्ते
तात इति । गत्वा च प्रतिनिवृत्त्य च देव तथैवेति विज्ञापितस्तेन अमुहीत-

ताम्बूल एव सत्ताम्यतामनसा अस्ताभिलाषिणि सवितरि सर्वानाहूयोपहरे
वेद्याः ! किमस्मिन्नेवंविधे विधेयमधुनेति विषखहृदयः प्रपच्छ । ते तु
व्यज्ञापयन् देव धैर्यमवलम्बस्व कतिपर्यैरेव वासरेः पुनः स्वां प्रकृतिमापन्नं
स्वस्थं श्रोष्यसि पितरमिति ।

(c) स्वस्ति नन्दौपुरतो गुर्जरनरपतिवंशमहोदधौ श्रीसहजन्मा विमल-
यशोदीधितिनिकरविनिहतकलितिमिरनिचयः सामन्तददृः । यश्चोपमीयते
शशिनि सौमत्ववैमल्यशोभाकलाभिः, न कलङ्केन । श्रीनिकेतशोभासमुदय,
धिकृतकुलकण्ठकतया कमलाकरे, न पङ्कजन्मतया ; सत्त्वोत्साहविक्रमे-
र्मुगाधिगजे न क्रुराश्रयतया ; लावण्यस्यैर्यगामीर्यस्थित्यनुपालनतया
महोदधौ न व्यालाश्रयतया ; सत्कटकसमुन्नतविद्याधरावासतया हिमाचले,
न खशपरिवारतया । यस्य च सङ्गोऽगः शेषोऽस्यैव विमलकिरणमणि-
शताविष्कृतगौरवः सकलजगत्साधारणः । यस्य प्रकाशयते सत्कुलं शीलेन-
प्रभुत्वमाज्ञया, शस्त्रमरातिप्रणिपातेन, कोपो निग्रहेण, प्रसादः प्रदानैः धर्मो
देवद्विजातिगुरुजनसपर्ययेति ।

(d) तत्र च प्रथममस्य चेतोहारिभिर्मूर्च्छाविगैरन्धकारतामनीयन्त दश
दिशः ततो जलधरैः । अग्रतः समुत्प्लुतेन चेतसा काप्यगम्यत, पृष्ठतो हंसेः ।
पूर्वं तुलितनौलोत्पलवदकान्ति नयनयुगलमस्य सलिलं समुत्सवर्जं, चरम-
ममोमुचां वृन्दम् । वर्षजललुलितैः कमलाकरैरेव सह ममज्ज कादम्बरी-
समागमप्रत्याशा । धारारयासहैः कन्दलैरेव सहाभिद्युत हृदयम् । ततश्च
वितनेन स्थलीषु, कलकलेनाम्बुषु, पटुनापर्वततटेषु, उत्त्वयेन तालीवनेषु,
यथाधारापतनमाकर्ण्यमानेन धारारवेणोत्कलिकाकलितो न रात्रौ न दिवा
न ग्रामे नारख्ये कथञ्चिदपि न कुचिदपि निर्वृतिमेवाध्यगच्छत् । अनधिगत-
निर्वृतिश्च धीरस्वभावोऽपि प्रकृतिमेवोत्सवर्ज । प्रावितसकलधरातलैर्धाराज-
लैरप्यशोष्यत । द्योतितदशदिशा शतह्रशालोकेनापि मूर्च्छान्धकारेऽस्तिष्यत ।

(e) याते च दिनत्रये अस्तगिरिशिखरगैरिक्ततटवाधारणच्छायतेजसि
अन्तरिक्षाख्येन शङ्करशरीरेण संस्पृष्टायाः सन्ध्याङ्गनायाः रक्तचन्दनवर्चितेक-
स्तनकलशदर्शनौघे दिनाधिनाथे जनाधिनाथः स आगत्य जनस्यास्य धरणि-
न्यस्तंचरणनखकिरणच्छादितकिरीटः कृताञ्जलिरतिष्ठत् । आदिष्ठश्च “दिष्टा-

विष्णुविष्णु इह जगति हि न निरुद्धेहि न श्रियः संश्रियन्ते । श्रेयांसि च
 सकलानि अनलक्षणां हस्ते निव्यसन्निध्यानि यतस्ते सधौयसा सङ्गरितेन
 अनाकलितकलङ्केन अर्चितेन आङ्गुष्ठेससा जनेन अनेन सरस्वत्या संकृतं यथा
 इह तेऽद्यविष्णुः स्यात् । तदेतस्यां निशि गाहनीयं गाहनान्तरञ्च वलिलतले
 सततगतीन् अन्तःसञ्चारिणः सन्निमृद्य यथाशक्ति श्रय्या कार्या ।

SANSKRIT.

GROUP I.

SIXTH PAPER.

*Candidates are required to give their answers in their own words
 as far as practicable.*

FIRST HALF.

Examiner—DR. D. R. BHANDARKAR, M.A.

Full marks—50.

Any THREE questions may be attempted.

1. What are the constituent qualities of Aśoka's dharma and how was it to be shown in practice according to him? What practical hints does he give in order that an individual may develop dharma in himself?

2. What light do Aśoka's inscriptions throw on the administration of the period?

3. Determine the extent of Aśoka's dominions from external and internal sources.

4. What do you know about Aśoka as (1) a private individual and (2) as a ruler?

5. Explain the following with reference to context, giving the various interpretations put upon them:—

(a) Ya cha kinchi mukhato āśapayāmi svayaṁ dāpakam vā srāvāpakam vā ya vā puna mahāmātresu āchāyika āropitaṁ bhavati tāya athāya vivādo nijhatī vā saṁto parisāyaṁ ānāntaram paṭivedetavyaṁ me sarvatra sarvekāle.

(b) So devānaṁ piyo Piyadasi rājā dasavasābhisito saṁto ayāya sambodhiṁ.

(c) Iminā chu kālena amiśā samānā munisā Jambudipasi miśā devehi.

SECOND HALF.

Examiner—BABU SURENDRANATH MAJUMDAR, M.A.*Full marks*—50.*N.B.*—Attempt Question 6 and any two.

6. (a) Transcribe the following extract in Devanāgarī, Roman or Bengali :— 20

হা^লি^ই^| ফ^ ন^ল^ল^ল^ল^ল^
 ধ^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^
 ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^

(b)

Either.

Trace the development of modern Bengali *k*, *m*, *y*, and *s* from the Brāhmī Alphabet.

Or,

Write notes on *any four*: (i) the Drāviḍī of Bhaṭṭiprolu, (ii) Bower MS. Script, (iii) Kuṭiḷa, (iv) Arrowhead, and (v) Vaṭṭeḷuṭṭu alphabets.

7. Transcribe and translate into English :—

15

(c) :৪^ই^হ^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^

ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^

ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^

(d) হ^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^

ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^ল^

8. (a) Translate into Sanskrit :— 15
*Vidite ve bharite āvatake hamā Budhasi dhammasi samghasi galave
 ca pasāde ca. E keṃ cī vagavatā Buddhena bhāsīte save se subhāsīte
 vā.*
- (b) Explain the system of numerical notation used in the 'minor
 rock edict' of Aśoka.
9. Write notes on any five : *Nagaravijohālākā, phāsuviḥālātā, 15
 suve suve, samādāpayitave, nimsiḍhiyā, caghamitī.*
10. (a) Give a summary of the Kalinga edicts. 15
 (b) Transcribe in Aśoka Brāhmī :—
*Iyaṃ dhammalipi ata athi silāthambhāni vā silāphalakāni vā tata
 kaṭaviyā.*

SANSKRIT.

GROUP J.

SEVENTH PAPER.

*Candidates are required to give their answers in their own words
 as far as practicable.*

FIRST HALF.

Examiner—DR. D. R. BHANDARKAR, M.A.

Full marks—50.

Any THREE questions may be attempted.

- (a) What are the dates specified in the Mandasor inscription of Kumāragupta and Bandhuvarman ? To what era do they belong ?
 (b) State all you know about the nomenclature of this era.
- Translate the following stanzas and explain fully their historical significance :—
 (a) Pitari divam=upete viplutām varṇsa-lakshmīm bhuja-bala-
 vijitārīr=vyah pratisthāpya bhūyah [|]
 jitam= iti paritosān=mātaram sāsranettrām hata-ripur=iva
 Kṛishṇo Devakīm=abhyupetaḥ [||]
 (b) Sthāṇor=anyattra yena prapāti-kṛpānatām prāpitam n=
 ottamāṅgam
 yasy=ślishto bhujābhyām vahati Himagirir=durgga-śabd-
 ābhimānam |
 nichais=ten=api yasya prapāti-bhujabal-āvarjjana-klišṭa-
 mūrddhnā
 chūdā-pūshp-opahārair = Mmihirakula-nripeṇ = ārchchitam
 pāda-yugmaḥ ||
- Give a summary of the contents of the Junagarh rock inscription of Skandagupta.
- What do you gather about the social, religious and economic life of ancient India during the Gupta period ?
- Specify what tribes are mentioned and in what connection in the Allahabad pillar inscription of Samudragupta. Identify them as far as possible.

SECOND HALF.

Examiner—BABU SURENDRANATH MAJUMDAR, M.A.*Full marks*—50.*Attempt Question 6 and any two.*

6. Transcribe the following extracts in Devanagari, Bengali or 18 Roman, and translate either of them into English :—

অসুখবশতঃ পিতৃদেহে
 কষ্টবশতঃ পিতৃদেহে
 চন্দ্রসিংহের পিতৃদেহে
 পিতৃদেহের পিতৃদেহে

(৬) অসুখবশতঃ পিতৃদেহে
 কষ্টবশতঃ পিতৃদেহে

চন্দ্রসিংহের পিতৃদেহে
 পিতৃদেহের পিতৃদেহে

7. Translate into English any four :—

16

- (a) राजानो युधि हृष्टवाजिन इव श्रीवेवगुमादयः
 कृत्वा येन कशापहारत्रिमुखाः सर्वे समं संयताः ।
 उत्खाय द्विषतो विजित्य वसुधां कृत्वा प्रजानां प्रियं
 प्राणानुज्झितवानरातिभवने सत्पानुरोधेन यः ॥
- (b) न्यक्कारेण पितुः श्रियं कलचुरिजत्रान्वयात् कर्षता
 येनेकेन हि तूवर्येण करिणा षष्ठिर्जिता इन्तिनाम् ।
 तं च ब्रह्मचरूपतिं गजघटावष्टब्धसेनां हठात्
 येनाश्चरेपि केवलैर्भुजभृता निर्जित्य राज्यं हृतम् ॥

- (c) सा जायाजायताजातशत्रोस्तस्य महीभुजः ।
भीमसेनार्जुनोपास्यशोभूषणशालिनः ॥
- (d) शूरमन्य इवासि नाना किमिह स्वं राघव स्नायसे
स्पर्धां वर्धनं मुञ्च वीर विरतो नाद्यापि दर्पस्तव ।
इत्यनोन्यमहर्निशप्रणयिभिः कोलाहलैः क्षामुजां
यत्कारागृहयामिकैर्नियमितो निद्रापनोदकमः ॥

(e) शैशवात् प्रभृति खड्गद्वितीयवाहुरेव समदपरगजघटास्फोटन-
प्रकाशितसत्त्वनिकषस्तत्प्रभावप्रणतागतिचूडारत्नप्रभासंसक्तपादनखर-
श्मिसंहतिः स लक्ष्मिप्रणीतमार्गसम्यक्परिपालनप्रज्ञादृढयरञ्जनान्वर्ण-
राजशब्दः पादचारीय सकलभुवनमण्डलाभोगप्रमोदः श्रीगृहसेनः ।

8. (a) Explain fully the historical allusions in ślokas (a), (b) 16 and (c).

(b) Point out the peculiarities of the alphabet of the Deopara inscription.

9. (a) Write notes on : —

16

Mahāksapatalika, Sotpadyamānaviṣṭika, Māḍavika, Sadaśāparā-dha, Divira, Rahasādhikata.

(b) Explain the historical importance, and give the substance, of the Aihole inscription.

10. Give a brief account of the Rāṣṭrakūṭas and of the kings of 16
Valabhi.

SANSKRIT.

GROUP I.

EIGHTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Examiner—HON'BLE SIR ASUTOSH MUKHERJEE, KT., C.S.I.,
M.A., D.L.

Full marks—50.

N.B.—Answer any THREE of the following questions.

All the questions carry equal marks.

1. Give a complete history of the kingdom of the Gāndhāra, noticing specially the following points :—(a) the geographical limits of the kingdom, (b) the races that exercised political influence in it, (c) its chief towns and what they were noted for, and (d) an account of it as left by Hwen-thsang.

2. Write historical and geographical notes on the following :—
Jālandhara, Bukephala, Sākala, Balabhi, Bharoch, Kurukṣetra, Srughna and Sankisa.

3. Give a brief account of the following kingdoms :—

Kanoj, Kosāmbi, Vaisāli, Paundravardhana, Malwa, Samatata and Tāmra-līpti.

4. Draw a map of Southern India, locating all the kingdoms visited there by Hwen-thsang. Give some account of each of the kingdoms.

5. Give concise accounts of three of the following :—

(a) The temple of Sun at Multan as seen by Hwen-thsang and other foreign travellers.

(b) Māyāpura at Haridwar as described by Hwen-thsang.

(c) Akṣaya-vata at Prayāga as noticed by Hwen-thsang and other foreign writers.

(d) The Lumbini garden as visited by Fa-hian and Hwen-thsang.

(e) The Kukkuṭapāda vihāra as visited by Fa-hian and Hwen-thsang.

SECOND HALF.

Examiner—MAHAMAHOPADHYAYA DR. SATISHCHANDRA VIDYA-
BHUSHANA, M.A., PH.D.

Full marks—50.

Translate into Sanskrit any two of the following extracts :—

(a) When the child Koklā was growing up, he ordered that the old custom of his people should be disregarded, and that the little princess should be, not reared on vegetable food, but nourished also with flesh-meat every day. Her education was entrusted to the ancient nurse who had accompanied her from Srikot, and who was quite devoted to her. No other woman but herself was allowed to attend her, and no other woman but herself was permitted to enter the walls of the fortress.

(b) Then said Srikap to Rasālu, "Wherefore have you come to me?" "It is reported," answered he, "that you are a tyrant, a man of blood, delighting in the slaughter of thousands of innocent men. Therefore have I come to your castle to challenge you to combat." "Be it so," replied Srikap. "Everything shall of course be ordered as you desire." Then said he again, "For you and me to fight together in public would be anything but creditable."

(c) So the king saw us yesterday from a distance, while we were debating about a place to dwell in, and how we should subsist. And your majesty, seeing us, had us brought and thrown into prison on the suspicion of being thieves, and to-day we have been questioned about our history, and I have just told it: now it is for your highness to dispose of us at pleasure." When one of them had said this, the king Vikrama-simha said to these two Brāhmins,—"I am satisfied, do not be afraid, remain in this city, and I will give you abundance of wealth."

(d) Once on a time there was a king named Mahāsena, and he was attacked by another king far superior to him in power. Then the king's ministers met together, and in order to prevent the ruin of his interests, Mahāsena was persuaded by them to pay tribute to that enemy. And after he had paid tribute, that haughty king was exceedingly afflicted, thinking to himself, "Why have I made submission to my enemy?"

(e) "Hear what happened to Nanda after you had left him. Sakatāla after waiting for it a long time, found that he had now obtained

an opportunity of injuring him. While thinking how he might by some device get Yogananda killed, he happened to see a Brāhman named Chānakya digging up the earth in his path; he said to him, "Why are you digging up the earth?" The Brāhman, whom he had asked, said, "I am rooting up a plant of *darbhā* grass here, because it has pricked my foot."

PALI.

FIRST PAPER.

Examiner—BABU SAILENDRANATH MITRA, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. "That the Atitavasthu is the oldest part of the Jātaka may be clearly seen from the language of the Pali verses." Illustrate this statement from your text. 9

2. Give in your own Pali the story of the *Gaṅgamāla-jātaka* or of the *Kaṇhadīpāyana-jātaka*. 6

3. "In many instances gāthās in the Theragāthā uttered at different times and on different occasions are incoherently put together." Illustrate. 6

Or,

Write a short note on the Therīgāthā under the following heads:— 6
(a) canonical tradition, (b) historical significance, (c) relation between teacher and disciple.

4. Translate any two of the following extracts into English:— 8

(a) Dumavhayāya uppanno jāto paṇḍaraketunā
ketuhā ketunā yeva mahāketum padhamsayi.
Cutā patanti patitā giddhā ca punarāgatā
katam kiccāṃ ratam rammaṃ suken' anvāgataṃ sukhāṃ

(b) Sukhaṃ supanti munayo ye itthiṃsu na bajjhare
sadā ve rakkhutabbāsu yāsu saccaṃ sudullabhaṃ.
Vadhaṃ carimhā te kāma anañā dāni te mayam,
gacchāma dāni nibbānaṃ yattha gantvā na socati.

(c) Na nūnāyaṃ paramahitānukampino rahogato anuvigaṇeti
sāsanam;
tathā h'ayaṃ viharati pākatindriyo migi yathā taruṇajātikā
vaṇe.
Nagā nagaggesu sasaṃvirulhā udaggameghena navena sittā
vivekakāmassa araṇḍasaṇḍiṇo janeti bhiyyo Usabhassa
kalyataṃ.

5. Translate the following extracts into English, adding explanatory notes on the words italicized:— 10

(a) Cātuddasī pañcadasī yā ca pakkhassa atthami
pāṭihārikapakkhaṇā ca *aṭṭhaṅgasusamāgataṃ*
uposatham upagacchim devakāyābhinandinī.

(b) Yaṃ taṃ isihi pattabbaṃ *ṭhānaṃ durabhisambhavaṃ*
na taṃ *dvaṇyulīpaṇṇāya* sakkā pappotum itthiyā

(c) *Māyaṃ viya aggato kataṃ supinante va suvaṇṇapādapam upadhāvasi andha rittakaṃ janamajjhe-r-iva rupparūpakam. Vattani-r-iva kotar'ohitā majjhebubbulakā saassukā pīlikolīkā c'ettha jāyati vividhā cakkhuvidhā'va piṇḍitā.*

6. Write short biographical notes on—

8

(a) *any two* of the following:—Gosāla, Hārīta, Uttiya, Vappa and Vacchapāla;

(b) *any two* of the following:—Muttā, Visākhā, Vaḍḍhamātā Kisāgotamī and Subhā (kammārādhītā).

7. Discuss briefly the date of the composition of the Sumaṅgala-vilāsinī.

4

8. (a) Write all that you know about the Six Unbelievers referred to in the Sāmaññaphalasutta.

10

(b) Summarize in your own Pali what has been said in answer to the following question in the Mahāsatipatthānasuttanta:—
“*Kathaṃ ca bhikkhave bhikkhu kāye kāyānupassā viharatī?*”

5

9. Translate into English *any two* of the following extracts:—

12

(a) Tayidaṃ bhikkhave Tathāgato pajānāti: “Ime dīṭṭhitthānā evaṃ-gahitā evaṃ-parāmatthā evaṃ-gatikā bhavissanti evaṃ-abhisamparāyā ti.” Taṃ ca Tathāgato pajānāti, tato ca uttaritaraṃ pajānāti, taṃ ca pajānanaṃ na parāmasati, aparāmasato c'assa paccattaṃ yeva nibbuti vidditā, vedanānaṃ samudayaṃ ca atthagamaṃ ca assādaṃ ca ādinavaṃ ca nissaraṇaṃ ca yathābhūtaṃ vidditvā anupādā vimutto bhikkhave, Tathāgato.

(b) Yathā vā paṇ' eke bhonto samaṇa-brāhmaṇā saddhādeyyāni bhojanāni bhuñjivā te evarūpaṃ jūṭapamādatthānānuyogam anuyuttā viharanti—seyyathidaṃ aṭṭhapadaṃ dasapadaṃ ākāsaṃ parihārapathaṃ santikaṃ khalikaṃ ghaṭikaṃ salākahattham akkhaṃ paṇḍacīraṃ vaṇḍakam mokkhaṇḍikaṃ ciṅgulikaṃ pattāṇḍikaṃ rathakam dhanukam akkharikaṃ manesikaṃ yathāvajjam—iti vā iti evarūpaṃ jūṭapamādatthānānuyogā pativirato Samaṇo Gotamo ti.

(c) So anekavihitaṃ iddhiyidhaṃ paccanubhoti—eko pi hutvā bahudhā hoti, bahudhā pi hutvā eko hoti, āvibhāvaṃ tirobhāvaṃ tirokuddaṃ tiropākāraṃ tiropabbataṃ asajjamāno gacchati seyyathā pi ākāse, pathaviyā pi ummujja-nimmujjaṃ karoti seyyathā pi udake, udake pi abhijjamāno gacchati seyyathā pi pathaviyam, ākāse pi pallaṅkena kamati seyyathā pi pakkhī sakuno, ime pi candima-suriye evaṃ mahiddhike evaṃ mahānubhāvo pāṇinā parimasati parimajjati, yāva Brahmālokaṃ pi kāyena va sainvatteti.

10. Translate into English the following extracts, commenting on the words italicized:—

9

(a) Sujīvaṃ ahirīkena *kākasūrena* dhamasīṇa

pakkhandaṇḍiṇa pagabbhena saṃkiliṭṭhena jīvitam.

(b) Yassa c'etaṃ samucchinnam mūlaghaccaṃ samūhataṃ sa ve divā vā rattiṃ vā samādhim adhiyacchati.

(c) Ākāse ca padaṃ n'atthi samaṇo n'atthi bāhuro *papañcā-bhiratā* pajā nippapañcā Tathāgatā.

11. Give in your own Pali a summary of the Jarāvagga or the Nirayavagga of the Dhammapada.

5

12. Explain *any four* of the following terms;—*āsamso*, *gūṭhabhāṇī*, *dvicakkhu*, *ucchangapāṇṇo*, *ārogyamado* and *vidhūro*.

8

PALI.

SECOND PAPER.

Examiner—MAHAMAHOPADHYAYA DR. SATISCHANDRA VIDYA-BHUSHAN, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Full marks—50.

Answer any THREE of the following questions.

All the questions carry equal marks.

1. Translate the following into English :—

(a) Yā tesāṃ dhammānaṃ aññātānaṃ adhiṭṭhānaṃ apattānaṃ aviditānaṃ asacchikatānaṃ sacchikiriyāya paññā pajānaṃ vicayo pavicayo dhammavicayo sallakkhaṇā upalakkhaṇā paccupalakkhaṇā paṇḍitaṃ kosallaṃ nepuññaṃ vebhavyā cintā upaparikkhā bhūri medhā pariṇāyikā vipassanā samapajaññaṃ patodo paññā paññindriyaṃ paññā-balaṃ paññāsatthaṃ paññā-pāsādo paññā-āloko paññā-obhāso paññā-pajjoto paññā-ratanaṃ amoho dhammavicayo sammāditthi dhammavicaya-sambojjhaṅgo maggaṅgaṃ maggapariyāpannaṃ—idaṃ tasmīṃ samayo aññātaññassāmītindriyaṃ hoti.

(b) Katamā ditthisamsandanā pucchā? Pakatiyā lakkhanaṃ ātānaṃ hoti ditthaṃ tulitaṃ tiritāṃ vihlūtaṃ vibhāvitaṃ. So taṃ aññehi paṇḍitehi saddhiṃ samsandanatthāya pañhaṃ pucchati. Ayaṃ ditthisamsandanā pucchā. Katamā vimaticchedanā pucchā? Pakatiyā samsaya-pakkhanto hoti vimati-pakkhanto dvelhakaṃ jato. Evannu kho na nu kho kinnu kho kathan nu kho ti so vimaticchedanatthāya pañhaṃ pucchati. Ayaṃ vimaticchedanā pucchā.

(c) So ditthi saṃkappa-vāyāma-satisamādhī-vasena pañcavidho hoti. Ayaṃ pañcavidho pi manokammaṃ nāma. Evaṃ lokuttaramaggo bhajāpiyamāno tīni kammāni bhajati. Imasmīṃ thāne dvāra-saṃsadanā nāma hoti. Kāya-vacīdvāresu hi cōpanaṃ patvā kamma-pathaṃ appattaṃ pi atthi, mano-dvāre sanudācāraṃ patvā kammāpathaṃ appattaṃ atthi. Taṃ gahetvā taṃ taṃ dvārapakkhikaṃ eva akāmsu. Tatrāyaṃ nayo.

2. Give the legendary as well as the historical account of the composition of the Dhammasaṅgaṇi. What is the probable date of its composition? Mention the principal characteristics of Dhammasaṅgaṇi as a metaphysical work.

3. Explain the following terms :—

Appanā cattāro satipatthānā, ārammaṇa, atireka-civārā, saṃkilesā, bojjhaṅga, yebhuyya-vuttitā, abboharikā, dukkatāpatti, catubhūmakaphassa, and pañcasamvara-dvāra.

4. Where and when was the Atthasālinī composed? Write all that you know about Mahā-atthakathā. Name some of the Brāhmanic books and legends mentioned in the Atthasālinī. In what connections have they been mentioned?

5. Give in simple Pali the substance of what is stated in the Atthasālinī about “kāya-kamma-dvāra-katha.” How is “cakkhuvinnāṇa” produced according to the Dhammasaṅgani? What are the chief features of “kusalā dhammā”?

SECOND HALF.

Full marks—50.

Answer any THREE of the following questions.

All the questions carry equal marks.

1. Translate the following into English:—

(a) Tathā hi sekho abhigijjhanto asamuppannañca kilesaṃ uppādeti uppannañca kilesaṃ phāṭikaroti. Yo pana anāvilasaṃkappo anabhigijjhanto vāyamati, so anuppannānaṃ pāpakānaṃ akusalānaṃ dhammānaṃ anuppādāya chandaṃ janeti vāyamati viriyāṃ ārabhati cittaṃ paggaṇhāti padahati, so anuppannānaṃ pāpakānaṃ akusalānaṃ dhammānaṃ pahānāya chandaṃ janeti vāyamati viriyāṃ ārabhati cittaṃ paggaṇhāti padahati, so anuppannānaṃ kusalānaṃ dhammānaṃ uppādāya chandaṃ janeti vāyamati viriyāṃ ārabhati cittaṃ paggaṇhāti padahati. So uppannānaṃ kusalānaṃ dhammānaṃ tṭhiyā asammossāya bhīyyo-bhāvāya vopullāya bhāvanāya pūripuriyā chandaṃ janeti vāyamati viriyāṃ ārabhati cittaṃ paggaṇhāti padahati.

(b) Dve dhammā sādharmaṇā: nāmasādhāraṇā vatthusādhāraṇā ca, yaṃ vā pana kiñci aññaṃ pi evaṃjātiyaṃ. Micchattaniyatānaṃ sattānaṃ aniyatānaṃ ca sattānaṃ dassanapahātubbhā kilesā sādharmaṇā. Puthujjanassa sotāpannassa ca kāma-rāgabyāpādā sādharmaṇā. Puthujjanassa anāgāmissa ca uddhambhāgiyā saṃyojanā sādharmaṇā. Yaṃ kiñci ariyāsāvako lokiyaṃ samāpattiṃ samāpajjati, sabhā sā vitarāgehi sādharmaṇā. Sādharmaṇā hi dhammā evaṃ aññamaññaṃ paramparaṃ sakaṃ sakaṃ visayaṃ nātivattanti. Yo hi imehi dhammehi samannāgato, na so taṃ dhammaṃ upātivattati.

2. Elucidate the following terms:—

Niddesa-vāra, paṇidhesa-vāra, yuttihāra, vibhāṭṭihāra, vevacana-hāra, paññatti-hāra, parikkhāra-hāra, and samāropana-hāra.

3. What is the meaning of “Netti-pakarana”? Write all that you know about its author. What is the probable date of its composition?

4. Give the substance of the following in English:—

(a) Yo raso catunnaṃ mahābhūtānaṃ upādāya anidassano sappaviḥḥo mūlaraso, khandharaso, tacaraso, pattaraso, puppharaso, phalaraso ambilaṃ, madhuraṃ, tittakaṃ, katukaṃ, lonikaṃ, khārikaṃ, lapilam, kasāvo, sādu, asādu, yo vā panañño pi atthi raso catunnaṃ mahābhūtānaṃ upādāya anidassano sappaviḥḥo—yaṃ rasaṃ anidassanaṃ sappaviḥḥaṃ jivhāya anidassanāya sappaviḥḥāya sāyi vā sāyati vā sāyissati vā sāye vā—raso peso rasāyatanam potaṃ rasadhātu pesa—idan taṃ rūpaṃ rasāyatanam.

(b) Sabbadhammayāthāva-asanāpavedha-lakkhaṇā avijjā. Tassa vipallāsā padatthānaṃ Ajjhosāna-lakkhaṇā tanhā. Tassā piyārūpaṃ sātā-rūpaṃ padatthānaṃ Patthanalakkhaṇa lobho. Tassa adinnādānaṃ padatthānaṃ. Vanna-santhāna-byañjana-gaḥana-lakkhaṇā subhasaṇṇā. Tassa indriyāsāmaṃvaro padatthānaṃ. Sāsavaphassa-upagamana-lakkhaṇā sukhasaṇṇā. Tassa assādo padatthānaṃ. Samāhata-lakkhaṇānaṃ

dhammānaṃ asamanupassana-lakkhaṇā nicca-saññā Tassā viññāṇaṃ padatthānaṃ. Anicca-saññā-dukkha-saññā-asamanupassana-lakkhaṇā atta-saññā. Tassā nāma-kāyo padatthānaṃ.

5. Write notes on the following terms :—

Āsava, ogha, yoga, parāmāsa, pitthi, avisāhāra, kāyapāguṇātā. samatha, dhammāyatana, pañcaṅgika jhāna, and pañcaṅgikamagga.

PALI.

THIRD PAPER.

Examiner—MAHAMAHOPADHYAYA DR. SATISCHANDRA VIDYABHUSHANA, M.A., PH.D.

FIRST HALF.

PALI GRAMMAR.

Full marks—50.

N.B.—*Answer any THREE of the following questions.*

All the questions carry equal marks.

1. What is the exact meaning of “Pāli”? Is there any difference between “Pāli” and “Māgadhi”? Discuss the date of composition of the Pāli grammar by Kaccāyana.

2. Explain and illustrate the following suttas :—

(a) Pubbaṃ padoḥṭṭitaṃ assaraṃ sarena vīyojaye.

(b) Madā sare.

(c) No ca dvādito namhi.

(d) Sabbesaṃ ekābhiddhāne paro puriso.

(e) Sesato lopaṃ gasipi.

3. (a) Decline the following words in the objective, dative and locative cases in all numbers :—

Go, rāja, itthi, satthu, bhadanta, sabba, and tumha.

(b) Conjugate the following roots in the vattamānā, ajjatanī and parokkhā in all numbers and persons :—

Gaha, ji, vaca, kara, asa, and jana.

4. (a) Explain, with illustrations, the distinction among “parokkhā,” “hiyattani,” and “ajjatanī.”

(b) Substitute compound words for the following :—

Kucchito puriso, and jāyāya pati.

(c) Derive the following words :—

Dhīvara, sattū, geha, attā, kātūna, ghara, dhītā, kīriyā and dhamma.

5. (a) Expound the samāsas in the following :—

Dāśidāsaṃ, amita ghaṇa-sarīro, tirokuddaṃ, adhitth, cakkhubhūto, and chattupāhanaṃ.

(b) Account for the case-endings in the following :—

- (i) Kosā vijjanti.
- (ii) Kāke rakkhanti taṇḍulā.
- (iii) Ito tiṇṇaṃ māsaṇaṃ accayena parinibbāyissāmi.
- (iv) Dhammassa silāghate.
- (v) Gottena Gotamo nātho.
- (vi) Saṅghe dinnāṃ mahāphalaṃ.
- (vii) Adhi deveṣu Buddhō.

(c) Define the following terms :—Ga-saṇḍā ; pa-saṇḍā ; and jha-lā.

SECOND HALF.

SANSKRIT GRAMMAR.

Full marks—50.

Answer any THREE of the following questions.

All the questions carry equal marks.

1. (a) Show that some of the technical terms of the Sanskrit Kātantra vyākaraṇa are identical with the corresponding terms of Kaccāyana's Pāli grammar.

(b) Explain and illustrate the following sūtras :—

- (i) सिद्धो वर्णवमन्नायः ॥
- (ii) नामिनः स्वरे ॥
- (iii) लिङ्गान्त नकारश्च ॥
- (iv) अक्षय्युनेऽनक् ॥

2. (a) Decline जायत् in the objective case, neuter gender and plural number; ज्ञायी in the nominative case, masculine gender and plural number; and ज्ञाद्स् in the instrumental case, all genders and numbers.

(b) Explain the formation of गीतमाः and उपकुम्भेन ।

(c) Give the compound form or forms of पाचिका भार्या यस्य सः and expound the samāsa in अतिशुः ॥

(d) Under what circumstances do the following verbs take up ātmanepada suffixes :—

गम्, जि, हन्, and श्रु ?

3. (a) Frame sandhi in the following :—

अथै—रति ; उप—रहि ; कवी—हमौ ; तत्—शृणोति ;
वस—कारः ; पुनः—रमते ; and रघुः—गच्छति ।

(b) Mention, with examples, the principal rules for the use of cerebral ष (ष) ।

(c) Decline the following words in the accusative, instrumental and genitive cases :—

जरा, मति, जानु, दुह्, अहन्, एक, and पुष्पद्वि ।

(d) Give the feminine forms of the following :—

शूद्र, सेत्रक, पुत्रक, सहपति, and सुकण्ठ ।

4. (a) Conjugate the following verbs in लङ्, लृट् and लिट् in all persons and numbers :—

द्विष्, शी, भृ, घा, ग्रह्, and भिद् ।

(b) Give the causative forms of ज्ञा and बह्, and the desiderative forms of ख्, क्षभ, and ग्रह ।

(c) Give the forms in लुङ् third person singular number of the following :—

दिश्, कृ and रभ् ।

5. (a) Translate the following into Pāli :—

Hard by there was an old washerman who, observing his action, said to his wife, "Who is that man drinking water like a beast?"

"Whether you know him or not," answered she, "I know him well." "Tell me then, who he is," said her husband! "He is Rājā Hodi," answered the woman. "O fool," returned the washerman, "did you ever see a Rājā drinking water like that?"

(b) Translate the following into Sanskrit :—

"I tell you I am the son of a good man," said he, "and one well-to-do, and never before have I seen such troubles. I have become sick from the cold, and I pray you therefore to let me warm myself somewhere at a fire."

PALI.

FOURTH PAPER.

Examiner—BABU SURENDRANATH MAJUMDAR, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt questions 6 to 9 and any THREE of the FIRST FIVE.

1. What do you know of Aśvaghoṣa and of his important works ? 12
2. Give a short account of the author of the Bhāṭṭikāvyā. 12
3. What does the word *avadāna* mean ? What is its Pāli form ? 12
- Point out the chief characteristics of the style of Avadānakalpalatā.
4. Narrate briefly the stories of Sarvadvāda and Avantisundarī. 12

5. What do you learn from the Lalitavistara of the selection of a bride and of the accomplishments prized in a bridegroom of noble descent ? 12

6. Translate into English *twelve* slokas, selecting *four* from each of the following groups :— 48

GROUP A.

- (a) विद्याविशेषेऽपि कृतप्रयत्नः
 खला भवत्येव खरस्वभावः ।
 व्यालाः फणारत्नरुचिं दधानाः
 क्रूरं तमः क्रोधमयं वहन्ति ॥
- (b) दारिद्र्यतीव्रतिमिरापहः प्रजानाम्
 कीर्त्तिप्रकाशविभवैः पङ्क्तिरिताशः ।
 अभ्यलुप्तद्विमलमानसहंसवन्धु-
 स्तापं हरिष्यति स मे वसुधाधुधुः ॥
- (c) स्वस्थास्त एते निवसन्ति सन्तः
 सन्तोषकान्तेषु तपोवनेषु ।
 सन्तापनं स्त्रीनयनान्तश्चलं
 येषां श्रितं चेतसि नावसन्नम् ॥
- (d) शक्रत्रायुवरुणादयः सुरा
 विक्रियां मुनिवराश्च यत्कृते ।
 यान्ति तत् स्मरमुखं तृणायते
 यस्य कस्य न स विस्मयास्पदम् ॥
- (e) मयापि तस्या विरहेण पूर्वं
 जन्मान्तरे मारविमोहितेन ।
 संसक्तसन्तापनिमित्तभूतः
 खेदः प्रभूतव्यसनोऽनुभूतः ॥
- (f) किं कौतुकं यदि हरिः कश्चिक्कवाल-
 माहन्ति देवविहितं निजमेव भाज्यम् ।
 पञ्चाननं यदि भिनत्ति नखाट्टहासं
 तत्तस्य पौरुषकथापथमेति शौर्यम् ॥
- (g) रहः कृतं कर्म फलव्यवशम्
 न कर्मणामास्ति फलप्रणाशः ।

विघ्नं निपीतं विजनाम्बकारे
प्रायेषु किं न प्रहरत्यसङ्गम् ॥

GROUP B.

- (h) अनाकुलान्त्रासमुद्रतानि
निष्पेक्षवन्त्यायतविक्रमाणि ।
तथैव धीराणि पदानि सप्त
महर्षितारासदृशो जगाम ॥
- (i) अशुचिर्विकृतस्य जीवलोको
वनितानामयमौदृशः स्वभावः ।
वसनभरणैस्तु वञ्च्यमानः
पुरुषः स्त्रीविषयेषु रागनेति ॥
- (j) परेण हर्षेण ततः स वन्यं
जग्राह वासोऽंशुकमुत्सर्ज ।
व्याधस्तु दिव्यं वपुरेव त्विभूत
तच्छुक्लमादाय दिवं जगाम ॥
- (k) एवंविधैः कालचितैस्तपोभिः
परैर्दिवं यात्यपरैर्बुलोकम् ।
दुःखेन मार्गं सुखं क्षियन्ति
दुःखं हि धर्मस्य वदन्ति मूलम् ॥
- (l) अभागिनी यद्यहमायनेक्षणां
शुचिस्मिन् भर्तुर्गदीक्षितुं सुखम् ।
न मन्दभाग्योऽर्हति राहुलाऽप्ययं
कदाचिदङ्गे परिवर्त्तितुं पितुः ॥
- (m) मोलीघरैरसविषक्तहारैः
केयूरविपुलैश्च जैनैरेन्दुः ।
लक्ष्म्यङ्गमध्ये परिवर्त्तमानैः
प्राप्ता गृहस्थैरपि मोक्षधर्मः ॥

- (n) बहुद्वयस्त्रासपि गामवाण्य
पारं जिगोषन्ति महार्णवस्य ।
लाकस्य कामेन त्रिवृप्तिरस्ति
पतङ्गिरम्भाभिरिवार्णवस्य ॥

GROUP C.

- (o) अमरपुरगगानं अप्सराणां
रूपमनारमं दृष्ट्वा बोधिसत्त्वे ।
मांतरियमभवत् तदा हि तासां
प्रमदं तु कीदृशं बोधिसत्त्वमाता ॥
- (p) वर्यामह आभिमन्यया आत्मा
परममनोहरस्वरूपमप्सराणाम् ।
इमां वृषतिबधू निरोक्षमाणा
जिह्वा विपश्यत इव आत्मभावम् ॥
- (q) सो च नरवरन्दो दृष्ट्वित्तो भविता
गृहगतनु प्रविष्टो इष्टिकान्वमाह ।
यस्य अहं मनापो या च मे प्रीतिकामा
सा हि कुर्वत आज्ञां मण्डयित्वात्मभावम् ॥
- (r) ये कित्तिषाश्च हृदये मधुराः सुवाचः
कुम्भो विषस्य परिषिक्तं यथाकृतम् ।
हुष्यशैलशिलवत् काठनान्तरात्मा
सर्वस्य वा चिरमदर्शनं तादृशानाम् ॥
- (s) किं सारथे पुरुषं रूपविवर्णगात्रः
सर्वेन्द्रियोभिरविकलो गुरुः प्रश्वसन्तः ।
सर्वोङ्गेष्वपि उदराकुलं प्राप्तकृष्णम्
मूत्रे पुरौषं स्वकिं तिष्ठति कुत्सनीये ॥
- (t) प्रेक्षसि ताव इमा मरुकन्य सुलङ्घितिका-
स्तवकारणं सज्जितं भूषितं आगातकाः ।
को रूपमिमं समवेक्षन् रक्षति रागरतो
अपि लज्जरकाष्ठं व शोषितजीवितकः ॥

7. Rewrite in classical Sanskrit any *two* of (o), (s), (t). 5
 8. Give in simple Pali the substance of any *two* of the following :— 8

(u) क्थन् कुलं धन्यं तं विप्रवद्भि-
 र्यास्यन् सुतस्तप्स्यति मां समनुम् ।
 इत्थं नृपः पूर्वमवालुलोच
 ततोऽनुजज्ञे गमनं सुतस्य ॥

(v) इतः स दैन्यः प्रामश्रीनश्च एवार्हति क्षयम् ।
 विषवृत्तोऽपि सञ्ज्ञेयं स्वयं हेतुमसाम्प्रतम् ॥

(w) न तज्जलं यन्न सुचामपङ्कजम्
 न पङ्कजं तद् यदलीनघटपदम् ।
 न घटपदोऽसौ न जुगुप्सु यत् कलम्
 न गुञ्जितं नञ् जहाग यन्मनः ॥

9. Expound the *samūhas* in the words underlined in (u) and (w) 3
 and parse विषवृत्त in (v).

PALI.

GROUP A.

FIFTH PAPER.

Examiner—BABU SURENDRANATH MAJUMDAR, M.A.

Candidates are required to give their answers in their own words as far as practicable.

All questions are of equal value.

Attempt ANY SIX.

1. Explain any *five*:—(1) Metathesis, (2) Assimilation, (3) Prosthesis, (4) Glide-sounds, (5) Samprasāraṇa. (6) Svarabhakti, (7) Euphonic consonants; and illustrate them with examples from Sanskrit languages.

2. (a) Give examples of the change of (1) *a* into *u*, (2) *u* into *o*, (3) *kh* into *k* and (4) *l* into *n* in Pali and Prakrit.

(b) What do you mean by the *Īa-śruti* of the Jaina Prakrit?

3. (a) Show the influence of (i) *y* in changing *a* into *i*, and of (ii) *v* in changing it into *o*.

(b) Show that as a general rule the change of the dentals (i) into palatals is caused by a *y* as the second member, and into (ii) cerebrals by a *r* as the first member of a conjunct syllable.

4. Compare the declensions of noun stems ending in *i* and *u* in Sanskrit, Pali and Prakrit.

5. Mention the distinguishing features of the following Prakrit dialects :—

Māgadhī, Śaurasenī and Paisācī.

6. Turn into Sanskrit or Pali and name the dialects :—

(a) *Halā Saūndale, tuvatto bi tūdakassabassa ime assamarukkhā piadaretti takkemi yena nomāliūkusumapelavā bi tumam edūṇaṇi ālavāla-pūraṇe niūtā.*

(b) *Ṇam ekkassim diāhe vedasaladāmaṇḍabe ṇalinīpattabhūṇagadam udaṇi tuha hatthe Dannaḥidam āsi.*

(c) *Ale kaheḥi kaḥim tuē eḥe mahū-maṇi-bhāsule lāḥie aṅgulīe samā-sādiē.*

(d) *Paśidante bhāvamiṣṣe ; na hage īdisukammakālī.*

7. What do you mean by Analogy? State, and illustrate with Sanskrit examples, its influences on language.

8. Give a short account of the philological researches of the ancient Indians.

9. Examine briefly the main theories connected with the original home of the primitive Indo-Europeans.

10. What do you know of Bopp, his researches and defects?

PALI.

GROUP A.

SIXTH PAPER.

Examiner—DR. D. R. BHANDARKAR.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Six questions only are to be attempted, of which those marked with an asterisk are compulsory.

*1. (a) What qualities constitute Aśoka's dhamma? (b) How was it to be shown in practice according to him? (c) What means did he suggest to his people to develop it in themselves? (d) What measures did he adopt to disseminate it amongst them? (e) Was Aśoka's conception of dhamma in any way influenced by Buddhism? 30

*2. Explain fully the following passages with reference to context, giving the various interpretations put on them :— 30

(a) *Paṇisā pi yute āṇapayisati gaṇanāyaṃ hetuto cha vyaṃjanato cha.*

(b) *Bheriḥhoso aho dhammaghoso vimānadasaṇā cha hastidasanā cha agikhaṇḍhāni cha aṇāni cha divyāni rūpāni dasayitpā janam.*

(c) *Bandhanabaddhasā patividdhānāye apalibodhāyo inokhāye-chā eyam anubaddham pajāva-ti-vā-kaṭābhikāle-ti-vā mahālake-ti-vā viyā-paṭā-to.*

(d) *Nātikā-va-kāni-nijhapayisanti jivitāye-tānaṃ nāsaṃtaṃ-va nijhapayitave dānaṃ-dāhanti pālatikam upavāsaṃ-va-kachhamti.*

(e) *Iyam cha sāvane vivuthena duve sapaṇṇālāti satā vivuthā ti 256.*

3. What do you know of the following :— 10
 - (a) Aśoka as a ruler ?
 - (b) The art of the stone-cutter in his time?
4. (a) What Greek sovereigns have been mentioned by Aśoka—in 10
what edicts, and in what connection?
(b) Show how the exact date of Aśoka's coronation can be deter-
mined from his mention of their names.
5. Annotate the following words :— 10
 - (a) samāja, (b) anusamyāna, (c) vinīta, (d) āsīnava, and (e) nijhati.
6. (a) What steps did Aśoka take for the preservation of animal 10
life?
(b) What was his attitude towards the various religious sects ?
7. Write a short note on the peculiarities of the different dialects
traceable in Aśoka's inscriptions.
8. Draw up a list of the towns, countries and peoples mentioned 10
in Aśoka's edicts. Identify them as far as possible.

PALI.

GROUP A.

SEVENTH PAPER.

Examiner—DR. BENIMADHAB BARUYA, M.A., D.LITT.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

Attempt FIVE questions only.

1. Give an account of the Vajjis, dwelling chiefly on these points :— 20
(1) their political organisation and system of administration ; (2) the
integral parts of their dominion ; (3) their contribution to social, politi-
cal, religious and philosophical developments in India from the 6th
century B.C. to the 3rd century A.D.
2. Criticise the general form and style of such Pali poetical com- 20
positions as represented by the Thera-Theri-gāthā, the Sutta-nipāta
and the Sagātha-vagga of the Saṃyutta-nikāya, and determine their
place in the history of Indian dramas and epics.
3. Write a note on the origin and growth of the Jātaka literature, 20
and establish its connexion with other earlier, contemporary or later
Indian literature.

Or,

What is the difference between a Jātaka and an Apadāna? Illus-
trate your answer with examples. What is the chief interest of the
study of the Jātakas and Apadānas in relation to the history of Bud-
dhism and of Buddhist fine arts?

4. Give a systematic account of the system of the disposal of the 20
dead in India from the earliest times, noting whether, and to what
extent, the substitution of one method for another constitutes a defi-
nite step in the course of the evolution of the idea of immortality.

Discuss the exact bearing of the system on the history of Indian architecture, literature, medical science, hero-worship, and of some of the ascetic practices, notably Cannibalism.

5. Distinguish between a Niddesa and an Atthakathā. Examine 20
how far the tradition telling us that works of a commentarial nature had originated with Buddha Gotama, and were developed immensely by his disciples and by their disciples is reliable. Can you trace any such works in the ancient Vedic literature? Cite instances in each case as far as practicable.

6. A Buddhist writer of proved ability points out that the term 20
'Dhamma' had a far wider meaning with the Buddha than with the Buddhist emperor Asoka. Indicate the connotative changes undergone by the term up till the reign of Asoka. What new aspect of Buddhism is presented by Asoka's Dhamma, and what measures did he adopt for its propagation?

7. Depict a picture of Indian or Aryan life in the light of the Brah- 20
majāla and other Suttas that you are acquainted with, ascertaining the important part played by it in the articulation of Buddha's 'Doctrine and Discipline.'

8. Give an accurate description of the organisation of the trade- 20
guilds mentioned in the Buddhist texts. Examine whether these guilds of the working people are still to be found in India, how far they have been affected by political changes, and what benefits the Indian people may derive from them, if they be brought into a more working order.

9. Criticise, in the light of modern researches, Megasthenes' ac- 20
count of India, the fragments of which alone now survive.

PALI.

GROUP A.

EIGHTH PAPER.

Examiner—BABU SAIENDRANATH MITRA, M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

Write an essay on one of the following subjects:—

100

(a) Buddha as a story-teller.

(b) The Dhamma of the Tipitaka compared with the Dhamma of Asoka.

(c) Growth of the women leaders of the Buddhist Church and their influence on social ideals.

(d) Social customs at the time of Gotama Buddha.

PALI.

GROUP C.

FIFTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English :— 10

Paccayehi anunehi tena te bahavo ahum
Theraṃ kulehi saṃsaṭṭhaṃ Mahātiṣṣo'ti vissutaṃ,
Kulasaṃsaṭṭhadosena saṅgho taṃ nīhaṃ ito
Tassa siṣso bahulamassu Tissatthero'ti vissuto.
Kuddhōbhayaḡirimaṃ gantvā vasi pakkhābahi taḡim
Tatoppabhūti te bhikkhū Mahāvihāraṃ nāgamuṃ.
Evaṃ te bhayaḡirikā niggatā Theravādato
Pabbinnābhayaḡirikehi Dakkhina-vihārakā yaṭi
Evaṃ te Theravāṭhehi pabbinnā bhikkhavo dvidhā
Mahā Abhaya bhikkhū te vaḡḡhetāṃ dipavāsino.

(a) Who were the other schismatics in Ceylon? Say whether or not the Abhayagirikas can be identified with the Vetulyakas mentioned in the Kathāvatthu-commentary, supporting your answer in each case by evidence. 2

2. (a) Give an estimate of the state of society in Ceylon previous to Vijaya's conquest. Inquire how far the Ceylon chronicles differ in this respect from the Indian records. Is not queen Anulā a representative of the same barbaric instincts which characterise a Śūrpanakhā in the Rāmāyaṇa or the Yakkhiṇis in the Valāhassa Jātaka? 10

(b) Determine the historical relations of the Singhalese race with the Dravidians, and those of both with the Aryans.

3. What are the salient features of Buddhism as a living faith in Ceylon? How far do the Ceylon chronicles bear out king Asoka's boastful claim that he made great conquest in Ceylon, not by the sword but by the Dhamma? 10

4. "It may be said in justice to the Aryans in India that a spirit of toleration permeated their whole life. Religious persecutions in the strict sense of the term were unknown in their history until certain foreign rulers and invaders, whether they embraced an Indian faith or not, set an example." 5

Refute or justify this sad observation, citing instances in each case from the Mahāvamsa and other texts that you have read.

5. Who was Dutthagāmaṇi? When and where did he reign? Is there any ground for regarding him as a contemporary of king Milinda (Menander)? What are the valuable services that he rendered to the Buddhist faith? 12

6. "Whether in respect of arts or in respect of literature, the people of Ceylon seem to be utterly lacking in originality." How far is this view supported by the evidence of the Great Chronicle? 12

Or,

Write a note on the advancement of learning in Ceylon under the successive rule of her kings from Mahāsiva to Mahānāma.

7. Who was Buddhaghosa? Where did he come in contact with Revata? Can you find out any traces of the influence of the system of Patañjali in his works, and can you adduce any substantial proofs in support of the tradition that he wrote his *Atthasālinī* while in India?

8. Translate into English :—

Nikāyantara-laddhihi, asammisso anāculo
 Mahāvihāravāsinaṃ, vācanāmagganissito,
 Madhurakkhara-saṃyutta, attho yaṃsā pakāsito
 Tasmā hitattha kāmēna, karontena ca yaṃ mayā
 Puññaṃ adhigataṃ tena sukhāṃ papponto pāṇino.
 Antarāyaṃ vinā cēyaṃ, yathā siddiṃ upāgato
 Tathā kalyāṇa-saṃkappā, siddhiṃ gacchantu pāṇinaṃ.
 Nara-nācigaṇākiṇṇe, asaṃkijja-kulākule
 Phite sabbaṅga-sampanne, paṣanna-saritudake,
 Nānārataṇa sampuṇṇe, viddhāpaṇa saṅkate
 Kāveri-pattane ramme, nānārūpmasobhite,
 Kelāsa-sikharākāra-pāsāda-patimaṇḍite
 Kārita Kaṇhadāsena, dassaniye manorame,
 Vihāre viddhākāra-cāru-pākāra-gopure
 Tattha pācīna-pāsāde, mayā nivasatā sātā.

SIXTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt questions 1, 6, any TWO from Group A, and any TWO from Group B.

GROUP A.

1. Transliterate and translate into English, adding notes on important words :—

[illegible]

2. Transcribe in Aśoka Brāhmī :—

*Hidantapūlate dusampatipādāye amnata agāya dhammakāmatāya aṇṇa-
a palikkhāya agāya susūsāya aṇṇa bhayena aṇṇa usāhena. Esa*

cu khomama anusathiya dāmmāpekhā dhammakāmatā ca suve suve vadhiṭṭhā vadhiṭṭhā cevā.

3. Translate the above into English. 12
4. Write notes on any four :— 12
Samāja, Ajivika, Paṇivedaka, Thaira, Caghami, Atapatiye.
5. Summarise the teaching of the Toleration Edict. 12

GROUP B.

6. (a) Transcribe in Devanagari or Roman :— 20

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(b)

Either,

Write notes on any four :—(1) the Drāvidi of Bhattiprolu, (2) Śāradā. (3) Horiuzi Palmleaf MS. Alphabet, (4) Bhaikṣukī, (5) Vatteluttu.

Or,

Show the development of the modern Bengali *a*, *e*, *ta* and *ma* from the Brāhmī signs.

7. Discuss briefly the origin of the alphabet in which the Mansera 15
version of Asoka's Edicts is inscribed.
8. Describe in some detail Asoka's system of administration. 15
9. How far is the tradition of the Buddhists about the conversion 15
of Aśoka early in his reign borne out by the inscription?
10. What are the views of Aśoka as regards war and conquest? 15

PALI.

GROUP C

SEVENTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Six questions only are to be attempted, of which those marked with an asterisk are compulsory.

- *1. What princes of Āryāvarta and Dakṣiṇāpatha and their countries are mentioned in the Allahabad pillar inscription as having been conquered by Samudragupta? Identify them as far as possible. 20
2. (a) Prepare a dynastic list of the imperial Gupta kings, specifying the names of their queens and the dates known for them. 15
- (b) What is the exact initial year of the Gupta era? Who founded it? By what other name was it known in Kathiawar in the later period?
- *3. (a) Who was Rudradāman, and what was the extent of his dominions? 20
- (b) What different views are held in regard to the Śātakarni whom Rudradāman twice defeated but did not destroy in consequence of his relationship with him being not remote?
4. (a) What was the original name of the Vikrama era? 15
- (b) How was it connected with the Mālava tribe? State your reasons in full.
5. Show what light the Junagarh inscription of Rudradāman, the Allahabad pillar inscription of Samudragupta, and the Mandasor inscription of Kumrāgupta throw on the development of artificial poetry in ancient India. 15
6. What do you know of the following :—(1) Yaudheyas, (2) Rattarāja, and (3) Yaśaḥkarnadeva? 15
7. Give a summary of the contents of the Harsha stone inscription of the Chāhamāna king Vīgrahapāla, showing clearly its importance both for the political and religious history of Rajputana. 15
8. "As lately shown by Mr. Fleet, the mahārāja Bhojadeva, son of the mahārāja Rāmahadradeva, who is mentioned in two copper-plate grants from Mahodaya, is distinct from the above-mentioned paramēśvara Bhojadeva" (i.e. Bhojadeva of a Gwalior fort inscription). 15
- Criticise the above statement, adducing reasons in support of your views.
9. Identify the following places, specifying in what connection they are mentioned :—(1) Gopagiri, (2) Gavīdhumat, (3) Prithūdaka, (4) Khetaka, (5) Sākambharī, (6) Mattamayūra, (7) Ānandapura, (8) Kākanada, (9) Airikīṇa, and (10) Daśapura. 15

PALI.

GROUP C.

EIGHTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

All the questions carry equal marks.

FIRST HALF.

Full marks.—50.

Answer any THREE of the following questions.

1. Give a complete history of the kingdom of Gāndhāra, noticing specially the following points:—(a) the geographical limits of the kingdom, (b) the races that exercised political influence in it, (c) its chief towns and what they were noted for, and (d) an account of it as left by Hwen-thsang.
2. Write historical and geographical notes on the following:—
Jālandhara, Bukephala, Sāṅkala, Balabhi, Bharoch, Kurukṣetra, Srughna, and Sankisa.
3. Give a brief account of the following kingdoms:—
Kanoj, Kosāmbi, Vaisāli, Pauṇḍravardhana, Malwa, Samatata, and Tāmralipti.
4. Draw a map of Southern India locating all the kingdoms visited there by Hwen-thsang. Give some account of each of the kingdoms.
5. Give concise account of three of the following:—
 - (a) The temple of Sun at Multan as seen by Hwen-thsang and other foreign travellers.
 - (b) Māyāpura at Haridwar as described by Hwen-thsang.
 - (c) Akṣaya-vata at Prayāga as noticed by Hwen-thsang and other foreign writers.
 - (d) The Lumbini garden as visited by Fahian and Hwen-thsang.
 - (e) The Kukkuṭapāda vihāra as visited by Fahian and Hwen-thsang.

SECOND HALF.

Full marks.—50.

Translate into Pali any two of the following extracts:—

(a) Now as she spoke these words, meditating death, the head and body of her lifeless son began moving towards her on the ground, which, when she perceived, she dropped her weapon; taking up those bloody tokens one by one, she pressed them to her bosom. Then addressing the king, she cried, "Now will I go to Mecca and bring back with me those that will avenge my cause."

(b) Now the two birds flew up so high that at last they came to a region of rain, hail, and snow, which kept falling continually, and the female bird, drenched and terrified, cried:—"For God's sake, save my

life and take me to some places of shelter. "What can be done now?" said her companion. "It is your own fault, why did you not listen to good advice?"

(c) With these words he ran away from the place and made his escape. Coming to the river-bank, he went down to drink water, for he was thirsty, and there, when he had put down his hands towards the water, he saw on the fingers the black stain of the collyrium, and he drew them back, saying, "This is the only memento of my love which I possess, and I must not wash it away."

(d) "No," answered the woman; "stay you here! First I will go to Sāhibō, and tell her you have come, ask her if I may bring you there or not?" "If she ask you who has come," said Mirza, "say it is her cousin, the son of her mother's sister." So the old woman started off, going to the house of Sāhibō, to whom she gave the message, and Sāhibō said, "Where has he come from?"

(e) Once upon a time there was a donkey, and also a bullock, and neither the one nor the other had any regular master, but any one who wished used to catch them, and load them with stones or with timber, and work them to death. So one day the bullock said to the donkey, "Look here, we have no master and both our backs are sore. Every one puts upon us. Let us then go to the hills together and shift for ourselves!"

ARABIC.

FIRST PAPER.

Examiner—MAULAVI ABU MUSA AHMADUL HAQ.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English:—

قال فقد آمنّا بك يا رسول الله و صدقناك و شهدنا أن
ما جئت به هو الحق و اعطيناك على ذاك عهدنا
و موثيقنا على السمع و الطاعة فامض يا رسول الله لما أردت
فو الذي بعثك بالحق لو استعرضت بنا هذا البحر و خضته
لخضناه معك ما يتخلف منا رجل واحد و ما نكرة أن تلقى
بنا عدوا غدا انا الصبر عند الحرب صدق عند اللقاء لعل الله
تعالى أن يريك ما تقر به عينك فسر بنا على بركة الله فصار

رسول الله صلى الله عليه وآله وسلم و نشطه ذلك ثم قال سيروا
على بركة الله وأبشروا فان الله قد وعد في إحدى الطائفتين والله
لکاْذِبِي أنظر الى مصارع القوم ثم ارتحل رسول الله صلى الله
عليه وآله وسلم من ذفران و سلك على ثنأيا يقال لها الأصافر ثم
انحط منها على بلد يقال له الدبة ثم نزل الحيان بيمين وهو
كثيب عظيم كالجبل ثم نزل قريبا من بدر *

2. Comment on the following verses :—

(أ) بات الخيال من الصليت مؤزقي

يقزى السراة مع الرباب الملق

ما راعني الابيض وجيه

تحت الدجفة كالسراج المشرق

(ب) نام الخلي من الهموم و بات لي

ليل اكبد و هم مضلع

و سهرت لا اسري و لا في لذة

ارقي و اغفل ما لقيت الهجع

ابغي وجوة متخارجي من تهمة

ازمت على و سر منها المطلع

جزعا لمعتبة الوليد و لم أكن

من قبل ذاك من الحوادث اجزع

يا ابن الخلائف ان سخطك لامري

أمسييت عصمته بلاء مفظع

فلأنزع عن الذي لم تهو

ان كان لي و رأيت ذلك منزع

- فاعطف فداك ابي على توسعا
وفضيلة فعلى الفضيلة تتبع
- (ج) 3 يا دار عائكة التي بالأزهر
أفوقه بقفا الكثيب الأحمر
بغناء بيتك و ابن مشعب حاضر
في سامر عطر و ليل مقمر
فتلازما عند الفراق صباة
أخذ الغريم بفضل ثوب المعسر
- (د) 5 أصبح المك ثابت الأساس
بالبها ليل من بني العباس
بالصدر المقدمين قديما
و الرأس القماقم الرأس
يا أمير المطهرين من الذ
م و يارأس منتبي كل رأس
انت مهدي هاشم و هداها
كم أناس رجوك بعد أناس
لا تقيان عبد شمس عثارا
و اقطعن كل رقلة و غراس

3. (a) Notice the allusions in :—

8

(أ) ثم خرجنا حتى نزلنا العدو التي قال الله عز وجل
فجئت عتبة بن ربيعة *

(ب) قدم الطويل فأشرق و استبشرت
أرض العجّاز و بان في الاشجار

ان الطويل من آل حفص فاعلموا
ساد الحضور و ساد فى الاسفار

(ج) كيف بالعفو عنهم وقديما

قتلوكم و هتكوا الحرمات

أين زيد و أين يحيى بن زيد

يا لها من مصيبة و ترات

و الإمام الذي أصيب بحرا

ن إمام الهدى و رأس الثقات

(b) Rewrite the above extracts with vowel-points.

8

4. Answer either of the following two questions :—

8

(a) Note the grammatical mistake, if any, in—

وصخر او من ذا مثل صخر اذا غدا

بسلسلة الابطال قبا يقودها

If بسلسلة الابطال قبا is read for بساهمة الأطلال قبا , how would the sense stand ?

(b) Who is the author of the following verse :—

سعى بعد هم قوم لكى يدركوهم

فلم يفعلوا' و لم يليموا و لم يألوا

Quote that parallel verse for it, which has been composed by طويم , giving a literal translation of both.

5. Write explanatory notes in Arabic on any six of the following expressions :—

12

الانانى - امشي نحوه العرضة - برک الغماد - الرمل -

العروض - على من تكون الدبرة - قدم على التفيئة الشام -

لا حياك الله ولا بياك - بيوته شرد - ني لادمجه ادماج

من لؤلؤ *

6. Write a synopsis in Arabic of the story of *قصة بدر* as related in the text. 14

7. Translate into Arabic :— 25

The tenth century of the Christian era is a fortunate and illustrious period in Spanish history. Under 'Abdu'l-Rahmān III and his successor, Hākam II, the nation, hitherto torn asunder by civil war, bent its united energies to the advancement of material and intellectual culture. Hākam was an enthusiastic bibliophile. He sent his agents in every direction to purchase manuscripts, and collected 400,000 volumes in his palace, which was thronged with librarians, copyists, and book-binders. All these books, we are told, he had himself read, and he annotated most of them with his own hand. His munificence to scholars knew no bounds. He made a present of 1,000 dinārs to Abu'l-Faraj of Iṣfahān, in order to secure the first copy that was published of the great 'Book of Songs' on which the author was then engaged.

ARABIC.

SECOND PAPER.

Examiner—MAULAVI ABU MUSA AHMADUL HAQ.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. (a) Render into simple English, making the sense of each line clear :— 21

طربالقدرق الظلا م ورق انفس بالصبح
وسري الى القلب العليل عليل انفس الرياح
ومليحة ترنو بنر جسة وتبسم عن اقاح
قامت و قد برد الحلي تميم في ثنى الوشاح
تشرو و كل غنائها برد على كبد اقتراح
يا ليل هل لك من صبا ح ام لنجمك من براح
سأريق ماء شيبتي ما بين ريحان وراح
فيم العتاب ولا لهم غي و لا لهم صلاح
وكعاذ لاتي في المليحة عاذ لاتي في السماح
وهواي للبيض الصبا ح هواك للبيض الصفاح

و لوع كفى بالقدا ح و لوع كفك بالرمح
 و عليك ادمان الندي و علي ادمان امتداح
 فليعل رايك انه يلوي يد القدر المتاح
 و افخر فانك فى الملو ك لك المعلى فى القداح

(b) Into how many parts is a قصيدة generally divided ? Name 10
 each of them, and illustrate your answer from the above ode.

(c) What meaning has المعلى in the last line ? Give a full description of the game الميسر.

2. Expand in Arabic the idea in one of the following passages :— 16

Either,

اراني اذكبر الشينخ كلما طلعت الشمس او هبت الريح
 او نجم النجم او لمع البرق او عرض الغيث او ذكر الليث
 او ضحك الروض ان للشمس مكياء وللريح رياة وللنجم
 حلاة و علاة و للبرق سناؤة و سناة و للغيث يداة و نداة
 و لليث حماة و للروض سجاياة ففي كل صالحة ذكراة
 و في كل حادثة اراة فمتى انساة و اشد شوقا عسى الله
 ان يجمعني و اياة *

Or,

الوجه الحسن عنوان مخيل و ضمان جميل فان عضدة
 اصل كريم فاننا به زعيم و ان نصره بيت قديم فاننا له نديم و الشينخ
 بحمد الله دارة البدر حسن اشراق و فارة المسك طيب اخلاق
 و شجر الاترج طيب اعراق و طيب مذاق و طيب ورق و ساق
 و حرج على من هذه خصاله ان يغبني وصاله فاننا اخطب
 اليه مودته و ابذل روحي لها مهرا *

3. Explain any four of the following امثال :—

8

- (١) الملوك اذا خدمتهم ملوك و ان لم تخدمهم اذلوك
 (٢) من لحظنا بنظر شزر بعناة بثمان نزر (٣) احقكم الى

الحجارة فالتقدير نصف التجارة (٤) المرء من ضرره في شغل
ومن نفسه في كل (٥) النذل لا يألم العذل (٢) فارقذا
خشفا و اتى جلفا (٧) ما كان اجود من لو كان (٨) فعل
على السخط من القُرط *

4. Translate into English :—

4

ما اشبه نفسي في هذه الاسفار الا بالخيال الطارق او بلمع
البارق او الغلام الآبق او الجواد السابق او بهرب السارق او السهم
المارق وانما هو الشد و الترحال و الخيل و البغال و الحمير
و الجمال *

5. Derive and give the etymological meanings of the following, 8
and say under what parts of speech you would classify them :—

هَلَمْ - و اطربا - ريثما - بودي - لا ابالك - لا آلوه - العتبي -
يا ليت قومي *

6. Write out in Arabic a biographical sketch of بدیع الزمان الهمدانی 12
with dates and remarkable events.

7. Translate into Arabic :—

25

The chief man of letters of the next generation was Abū Maṣṣūr al-Tha'ālībī (the Furrier) of Naysābūr. Notwithstanding that most of his works are unscientific compilations, designed to amuse the public rather than to impart solid instruction, his famous anthology of recent and contemporary poets—the Yatīmatu'l-Dahr, or 'Solitaire of the Time'—supplies indubitable proof of his fine scholarship and critical taste. Successive continuations of the Yatīma were written by al-Bākhārī (1075 A.D.) in the Dumyatū'l-Qaṣr, or 'Statue of the Palace'; by Abu'l-Ma'ālī al-Ḥazīrī (1172 A.D.) in the Zīnatu'l-Dahr, or 'Ornament of the Time'; and by the favourite of Saladin, 'Imādu'l-Dīn al-Kātib al-Iṣfahānī (1201 A.D.), in the Kharīdatu'l-Qaṣr, or 'Virgin Pearl of the Palace.'

ARABIC.

THIRD PAPER.

Examiner—SHAMS-UL-ULMA AMJAD ALI, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Translate into English extract A, and any one of the following :—

A.

45

قحطت البادية أيام هشام بن عبد المک فوفد عليه رؤس
القبائل * فجلس لهم و فيهم صبيّ ابن اربع عشرة سمي
درواس ابن حبيب في رأسه ذؤابة و عليه بردة يمانية *
فاستصغره هشام و قال لحاجبه ما يشاء احد ان يصل اليذا الا
وصل حتى الصبيان * فقال درواس يا اميرالمومنين ان دخولي
لم يخلّ بك و لا انتقص و لكنه شرفني و ان هولاء قدموا لامر
فهابوك دونه و ان الكلام نشر و السكوت طي لا يعرف الا بنشرة
فاعجبه كلامه و قال انشر لا ام لك فقال انا اصابنا سنون ثلاث
فسنة اكلت اللحم و سنة اذابت الشحم و سنة افقت العظم
و في يديكم فضول اموال فان كانت لله عز و جل ففرتوها على
عبادة و ان كانت لهم فلا تحبسوها عنهم و ان كانت لكم فتصدقوا
بها عليهم فان الله يجزي المتصدقين و لا يضيع اجر المحسنين
و ان الوالي من الرعية كالروح من الجسد لا حيوة له الا
به فقال هشام ما ترك الغلام في واحدة من الثلاث عذرا و امر
بمائة الف دينار ففرت في اهل البادية و امر له بمائة الف

درهم فقال ارددها في جائزة العرب فما لي حاجة في خامة
نفسي دون عامة الناس *

B.

15 امر رسول الله صلى الله عليه وسلم ان ينحروا و يحلقوا فتوقفوا
فغضب حتى شكى الى زوجته ام سلمة فقالت يا رسول الله
اخرج و انحروا حلق فانهم تابعوك - فخرج و نحر و حلق
رأسه حينئذ خراش بن امية الخزاعي - ثم رجع رسول الله صلى
الله عليه وسلم الى المدينة و ما فتح من قبله فتح كان اعظم
من هذا الفتح - قال الزهري لما كان القتال حيث لا يلتقي
الناس - فلما كانت الهدنة و وضعت الحرب اوزارها و امن
الناس بعضهم بعضا فالتقوا و تفاوضوا في الحديث و المنازعة -
فلم يكلم احد بالاسلام احدا يعقل شيئا الا دخل عليه - فلقد دخل
في دينك السنتين في الاسلام مثل ما كان قبل ذلك او اكثر *

C.

15 مما اخبرنا به المفضل بن عبد الله بن محمد بن عبد الله بن
المعبر بن عبد الرحمن بن عمر بن الخطاب عن ابيه عن جده
عن ابي ظبيان عن عبد الله بن عباس رضي الله عنهما قال قدم
نافع بن الارزق الحاروري الى ابن عباس رضي الله عنهما يسأله
عن القرآن فقال ابن عباس يا نافع القرآن كلام الله عز وجل
خاطب به العرب بلغظها على لسان افصحها فمن زعم ان في
القرآن غير العربية فقد افترى قال الله تعالى قرانا عربيا غير ذي
عوج و قال تعالى بلسان عربي مبين - و قد علمنا عن اللسان

لسان محمد صلى الله عليه وسلم - وقال الله تعالى وما
ارسلنا من رسول الا بلسان قومه ليدين لهم وقد علمنا ان العجم
ليسوا قومه - و ان قومه هذا الحكي من العرب *

D.

اعلم ان للملك على رعيته حقوقا و ان لهم عليه حقوقا - فاما
الحقوق التي تجب للملك على رعيته فمنها الطاعة وهي الاصل
الذى ينتظم به صلاح الجمهور و يتمكن به الملك من الانصاف
للضعيف من القوي و القسمة بالحق و مما جاء فى التنزيل
من الحث على ذلك و هي الآية فى هذا المعنى قوله
تعالى يَا أَيُّهَا الَّذِينَ آمَنُوا أَطِيعُوا اللَّهَ وَ أَطِيعُوا الرَّسُولَ وَ أُولَى الْأَمْرِ
مِنْكُمْ وَ مِنْ أَمْثَالِهِمْ لَا أَمْرَ لِمَنْ لَا يَطَاعَ وَ لم ينقل فى تاريخ
و لا تضمنت سيرة من السيران دولة من الدول رزقت من طاعة
جندها و رعاياها ما رزقته هذه الدولة القاهرة المغولية - فان طاعة
جندها و رعاياها لها طاعة لم ترزقها دولة من الدول - فاما الدولة
الكسروية فانها على عظمها و فخامتها لم تبلغ ذلك - و قد كان
النعمان ابن المنذر ملك الحيرة نائبا لكسرى على العرب و بين
الحيرة و المدائن التي كانت سرير ملك الكسرة فراسخ معدودة
و النعمان فى كل ايام قد عصى على كسرى - و اذا حض
مجلسه تبسط و فجراً على مجاوبته و كان متى اراد خلع طاعته
دخل البرية فامس شرة *

15

(b) Answer any four of the following :—

(1) Who was عروق, and why has his name become proverbial ?

Quote Arabic verse or verses in proof.

4C

(2) What do you know of عذرة ابن شداد ؟

(3) Compare between the style of ابو تمام and فرزدق .

(4) Write down briefly the life of عمرو القيس , quoting lines from his writings.

(5) How do you distinguish between Pre-Islamic, Mukhazram, Movallad and Mubdas styles ? and which appeals to you most, and why ? Discuss.

(6) Distinguish between History and Legends. When, why and by whom the science of history was introduced ?

(7) Why is it that the language of Hadis is not so authoritative as that of the Pre-Islamic poets ?

ARABIC.

FOURTH PAPER.

Examiner—SHAMS-UL-ULMA MUFTI MD. ABDULLAH TONKI

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Your answers should be in Arabic.

اجيبوا عن اي خمسة تختارونها من تلك السبعة التي
بين ايديكم *

المفصل

1. متى يمتنع الاسم من الانصراف ؟ بينوا كما بين
في كتابكم المفصل * 10
2. متى يجوز دخول الفاء على خبر المبتدأ ومتى
يمتنع دخولها عليه ؟ بينوا و اوضحوا كما بين و اوضح في كتابكم * 10
3. ما المراد بترخيم المنادى وكم من شرائط لجوازه ؟
بينوا و اتوا بالامثال الموضحة له كما في كتابكم * 10
4. ما الذي لا بد منه لوقوع الجملة حالا اسمية او
فعلية - ماضيا او مضارعا مثبتا او منغيا ؟ بينوا و اتوا بالامثال * 10

5. 10 ما الوجوه الستة من حيث الاعراب في " لاحول
و لا قوة الا بالله " و ما اسبابها ؟ بينوا بالتفصيل *
6. 10 هل يجوز حذف المضاف و ترك المضاف اليه
على اعرابه ؟ فان جاز فاوردوا له امثالا للتوضيح و التفوير كما
في كتابكم *
7. 10 ما معنى قول صاحب المفصل " و من حق
الموصوف ان يكون اخص من الصفة او مساويا لها و لذلك
امتنع وصف المعرف باللام بالمبهم و بالمضاف الى ما ليس
معرفا باللام لكونهما اخص منه " بينوا بالتفصيل و اوضحوا
بالتمثيل *

الفرائد

- اجيبوا عن اي خمسة تشاؤون من تلك الستة اللتي بين
ايديكم *
1. 10 ما مرجع الصدق و الكذب عند الجمهور و ما قال
الجاحظ و النظام فيه ؟ بينوا بالايضاح مع الاجاز *
2. 10 ما معنى فائدة الخبر و لازمها ؟ بينوا بالتفصيل
و نوروا بالتمثيل *
3. 10 اينما يلقي الخبر الى المخاطب المنكر مجردا
عن التاكيد ؟ فصلوا و مثلوا *
4. 10 قال الله تعالى حكاية عن امرأة عمران " رب اني
وضعتا اثني " و المخاطب و هو الله تعالى ليس منكرا و لا
جاهلا - فما وجهه ؟ بينوا و مثلوا لزيادة الانكشاف و الاتضاح *

- 10 بینوا فوائد حذف المفعول به كقوله تعالى هل
يستوي الذين يعلمون و الذين لا يعلمون - و اوردوا له امثالا
شنى *
- 10 بینوا فوائد اثبات اجزاء الكلام عمدة كانت او فضلة -
6. و عليكم الكشف بامثال موضحة *

ARABIC.

FIFTH PAPER.

Examiner—SYED ABDUL HAQ* BAGHDADI.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

GROUP A.

Answer any THREE questions.

اجب عن ثلاث من المسائل الآتية: —

1. 16½ قد كان لكم آية في فئتين التقيا، فئة تقاتل في
سبيل الله و اخرى كافرة يرونهم مثليهم رأى العين *
من المخاطب (بقدر كان لكم) *

و لمن يرجع ضمير (مثليهم) ان كان يرجع الى المسلمين فهو
مناقض لآية الانفال (و يقللکم في اعينهم) فكيف تدفع تناقض
الآيتين - و اذا ارجعته الى المشركين فهل يكون صحيحا -
و على فرض صحته فما معنى الآية *

2. 163 قل ان كنتم تحبون الله فاتبعوني يحببكم الله

و يغفر لكم ذنوبكم و الله غفور رحيم ﴿٥﴾ قل اطيعوا الله و الرسول فان تولوا فان الله لا يحب الكافرين *

يبين معنى الحب و الطاعة *

هل تولوا فعل ماضٍ فقط أم يحتمل ان يكون غير ماضٍ ايضا و اذا كان يحتمل غير الماضي فهل ذلك الغير هو المضارع أم الامر *

الدعوى هي محبة الله و يصدق عليها باطاعة الرسول صلعم ففسر الآية بأسلوب تحصل به المطابقة بين الدعوى و التصديق *

3. 163 كنتم خیرامة اخرجت للناس تأمرون بالمعروف

و تنهون عن المنكر و تؤمنون بالله و لو آمن اهل الكتاب لكان خيرا لهم *

اكتب تفسير (كنتم خير امة) *

اخبرني عن تعلق جملة (اخرجت للناس) بما قبلها لم عبر بلو في (و لو آمن اهل الكتاب) مع ان كثيرا من اهل الكتاب كانوا قد آمنوا و ان لو تأتي للمحال *

4. 163 فسر بالانجليزية او العربية الآيات الآتية كما فسر

الزمخشري: —

تقد من الله على المؤمنين اذ بعث فيهم رسولا من انفسهم يتلوا عليهم آياته و يزيدهم العلم و الكتب و الحكمة و ان كانوا من

قبل لفي ضلّ مبين ⑤ او لما اصابكم مصيبة قد اصبتم
 مثلها قلت اني هذا قل هو من عند انفسكم ان الله على كل
 شيء قدير ⑥ و ما اصابكم يوم التقى الجمعان فبذن الله و ليعلم
 المؤمنون ⑦ و ليعلم الذين نافقوا و قيل لهم *

GROUP B.

Answer any THREE questions.

اجب عن ثلاث من المسائل الآتية :—

5. (A) عن ابي هريرة رض قال سمعت رسول الله 16½
 صلعم يقول (من خرج من الطاعة و فارق الجماعة فمات مات
 ميتة جاهلية ، و من قاتل تحت راية عمية يغضب لعصبية أو
 يدعو العصبية او ينصر عصبية فقتل فقتله جاهلية ، و من خرج
 على امتي بسيفه يضرب برها و فاجرها و لا يتعاشي من مؤمنها
 و لا يفني لذي عهد عهده فليس مني و لست منه -) *
 ترجم الحديث الشريف بالانجليزية - اشرح لفظتي عمية
 و عصبية و بين المعنى المراد منها - و اذكر محلها و محل
 (فقتله) من الاعراب *

6. عن أبي سعيد قال قال رسول الله صلعم (ما بعث 16½
 الله من نبي ولا استخلف من خليفة الا كانت له بطانتان بطانة
 تأمره بالمعروف و تحضه عليه و بطانة تأمره بالشر و تحضه عليه
 و المعصوم من عصمه الله) *

ترجم الحديث الشريف بالانجليزية - هل البطانتان تكونان
من جنس واحد أم مختلفتي الجنس فان كانتا مختلفتين فما
هو جنس كل واحدة منهما *

اللي حكمة بالغة جعل الله وهو الرحمن اللطيف مع كل
نبي و خليفة بطانة تأمره بالشر و تحضه عليه - انبأ الحديث
الشريف عن عصمة طائفة كبيرة من الامة مع انه لا عصمة لغير
الانبياء عليهم السلام فاجب عن ذلك جوابا يزيل الشك
و يستأصل الشبهة *

162 عن انس قال قال رجل يا رسول الله (الرجل 7.

مذا يلقي أخاه أو صديقه أبغضني له قال لا قال أفيلتزمه ويقبله
قال لا أفياخذ بيده و يصفحه قال نعم *

ان الثابت من هذا الحديث القولي هو المصافحة فقط ، و
قد روى الشعبي حديثا فعليا ثبت منه التقبيل وهو (ان النبي
صلعم تلقى جعفر بن ابي طالب فالتزمه و قبل ما بين عينيه)
و قد روى عن ابي بكر رض اتباعه لهذا الحديث الفعلي
و عمله به (عن البراء قال دخلت مع ابي بكر اول ما قدم
المدينة فاذا عائشة ابنته مضطجعة قد اصابها حمي فاتاها
ابو بكر فقال كيف انت يا بنية و قبل خدها) فهل يمكن
التطبيق بين الحديث القولي و الحديث الفعلي و كيف
ذلك بينه و اوضحه *

16½ 8. تعالوا قالوا في سبيل الله او ادفعوا قالوا لو
نعلم قتالا لا اتبعنكم هم للكفر يومئذ اقرب منهم للايمان يقولون
بافواههم ما ليس في قلوبهم *

اشرح بالعربية او الانجليزية الاحاديث الآتية :—

(ا) ابي بكرة قال لما بلغ رسول الله صلى الله عليه وسلم
ان اهل فارس قد ملكوا عليهم بنت كسرى قال لن يفلح قوم
لوا امرأة رواة البخاري *

(ب) عن الحارث الاشعري قال قال رسول الله صلى الله
عليه وسلم امركم بنخمس بالجماعة و السمع و الطاعة و الهجرة
و الجهاد في سبيل الله و انه من خرج من الجماعة قيد شبر
فقد خلع ربة الاسلام من عنقه الا ان يرجع و من دعا بدعى
الجاهلية فهو من جثي جهنم و ان صام و صلى و زعم انه مسلم
رواة احمد و الترمذي *

ARABIC.

SIXTH PAPER.

Examiner—SHAMS-UL-ULAMA MAULAVI VILAYET HOSSAIN.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

لا بد لكم ان تكتبوا الجوابات كلها بالعربية :—

I.

1. 10 بينوا مراتب العارفين و المعدات التي اليها احتياج
السالكين الى ان يصلوا الى كمال الحق اليقين و يحصل لهم

النجاة من الضلال المبين ويتجلى في قلوبهم الصافية انوار
معرفة رب العالمين *

2. اكتبوا سوال (١) ام سوال (ب) *

سوال (١)

30. بينوا معاني هذه العبارة ومطالبا بلسان عربي - من أثر العرفان
للعرفان فقد قال بالذاني و من وجد العرفان كأنه لا يجده بل يجد
المعروف به فقد خاض لجة الوصول وهناك درجات ليست
اقل من درجات ما قبله آثرنا فيها الاختصار فانها لا يفهمها
الحديث و لا يشرحها العبارة و لا يكشف المقال عنها غير الخيال
و من احب ان يتعرفها فليتدرج الى ان يصير من اهل المشاهدة
دون المشافهة و من الواصلين الى العين دون السامعين للآثر *

سوال (ب)

30. اشارة - جلّ جذاب الحق عن ان يكون شريعة لكل وارد او
يطالع الا واحد بعد واحد و لذلك فان ما يشتمل عليه هذا الفن
ضحكة للمغفل عبرة للمحصّل فمن سمعه فاشمأز عنه فليتهم نفسه
لعلها لا تناسبه و كلّ ميسر لما خلق له *

10. بينوا تحقيقات هذه الالفاظ - إيثار - عرفان - خوص -

لجة - تدرج - عين - اثر *

II.

10. 1. من هو اول من قطع درب بغراس و ما وقع فيه
من الاختلاف من المؤرخين و في اي عام وقع غزوة المصيصة
و من كان قائدا للعساكر في هذه الغزوة *

لکم الخیار فی تحریر سوال (۱) ام سوال (ب) *

2.

سوال (۱) اشرحوه بالعربية :—

30 ثم لما دخلت سنة ۱۳۹ امر بعمران مدينة المصیصة و كان حائطها متشعنا من الزلازل و اهلها قليل فى داخل المدينة فبنى سور المدينة و اسكنها اهلها سنة ۱۴۰ و سمها المعمورة و بنى فيها مسجدا جامعاً فى موضع هیکل كان بها و جعله مثل مسجد عمر مرات ثم زاد فيه المامون ايام ولاية عبد الله بن طاهر الحسين المغرب و فرض المنصور فيها لالف رجل ثم نقل اهل الخصوص و هم فرس و صقالبة و انباط نصارى و كان مروان اسكنهم اياها و اعطاهم خططا فى المدينة عوضاً على منازلهم على ذرعها و نقض منازلهم و اعانهم على البناء و اقطع الفرض قطائع و منازل *

سوال (ب)

3. بينوا مطالب هذه العبارة الآتية بالعربية :—

30

حدثنا شيبان بن فروخ قال حدثنا ابو عوانة عن المغيرة عن السفاح الشيباني ان عمر بن الخطاب رضى الله عنه اراد ان يأخذ الجزية من نصارى بني تغلب فانطلقوا هاربين و لحقت طائفة منهم ببعد من الارض فقال النعمان بن رزعة او رزعة بن نعمان انشدك الله في بني تغلب فانهم قوم من العرب ناثفون من الجزية و هم قوم شديدة نكايتهم فلا يعن عدوك عليك بهم فارسل عمر رضى الله عنه في طلبهم فردهم و اضعف عليهم الصدقة *

4.

— تحقیقات هذه الالفاظ مطلوبة منكم :

10

- تشعث - مرات - فرض - خطط - اقطع - قطائع - ناثفون -

نكابة - اضعاف *

ARABIC.

SEVENTH PAPER.

Examiner—SHAMS UL-ULAMA AMJAD ALI, M.A.*The questions carry equal marks.*

A. GENERAL.

Only FIVE questions to be answered.

1. "Omer's accession to the Caliphate was of immense value to Islam." Discuss.
2. Who was Táriq? What is his importance in the history of Islam?
3. Write what you know of Saladin. What impression did he leave on the minds of his friends and foes?
4. Estimate the abilities of Mu'āwiyah as a statesman.
5. Give a description of the battle of Karbala. What part did Shimr play in it?
6. Of the many Abbaside Caliphs, whose reign is most interesting to you, and why?
7. What is your opinion as to the character and abilities of Omar-ibne-Abdil Aziz?
8. "The battle of Badar sealed the fate of the infidels." Justify the statement.
9. Write a note on any four of the following:—
 (a) Al-Medina, (b) Wahhabis, (c) Jezya, (d) Baitul Maqdis, (e) Imam Hambal, (f) Qoraish, (g) Mohajereen, (h) Siffin, (i) Mosailema Kazzab, (j) Ibn Batoota, (k) Amirul Momenin, (l) Ashab Suffah.

B. INDIA.

Not more than TWO questions to be answered.

1. Write what you know of any three of the following:—
 (m) Qutbuddin Aybak, (n) Nadir Shah, (o) Mahmood Gawan, (p) Akbar, (q) Sher Shah, (r) Ibrahim Lodi, (s) Raziya.
2. Some historians believe that Aurangzib was not responsible for the downfall of the Mogol dynasty. Justify or criticise the statement.
3. What part did Noor Jahan play in the reign of Jahangir?
4. What was the aim of Mahmood of Ghazni in invading India so many times? How far was he successful?
5. Give some examples to show how the Mohammadan influence brought about the changes in the habits, customs and language of the Hindoos.

ARABIC.

EIGHTH PAPER.

Examiner—SHAMS-UL-ULAMA ABU NASR MD. WAHEED, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write in English an essay on *any one* of the following subjects:— 100

1. The extent to which Western Arts and Sciences were influenced by Arab genius.

2. The forces which led to the standardisation of the Arabic language which has continued to be a living language.

3. The rise and development of the Scholastic Theology (علم الكلام) in Islam, and the part subsequently given to Greek philosophy in it. How far is this part found overdone in view of the present position which the Greek philosophy occupies? What was the original intention in introducing Greek philosophy?

PERSIAN.

FIRST PAPER.

Examiner—SHAIKH ABU NASR GILANI.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English, adding notes where necessary:—

15

دھر نی قالب قدیمی او

طبع نی باعث کریمی او

نشود دھرو طبع بی قولش

جان در نہاد بی طور

فعل و ذاتش برون ز آلت و سوست

بس کہ ہوئیتش بر از کن و ہوسست

آنکه بی خامه زد ترا بی رنگ
 هم تواند گزاردن بی رنگ
 از درونت نگاشت صنع اله
 نه ز زرد و سپید و سرخ و سیاه
 وز بروفت نگاشته افلاک
 از چه از باد و آب و آتش و خاک
 داد خود سپهر بستاند
 نقش الله جاودان ماند
 آفریدت ز صنع در تکلیف
 کرد فضلش ترا بخود تعریف
 گنجی بدم نهانی من
 خَلِيقَ الْخَلْقِ تا بدانی من
 کرده از کاف و نون چو در ثمین
 دیده را یک دهان پر از یاسین

2. (a) Give the root meaning as well as the ordinary signification 3
 of the words دهر and تکلیف.

(b) Quote the حدیث to which line 9 in the above extract refer, 4
 and give its translation in Persian.

(c) What does اله نقش signify in line 7? State fully to what do 5
 کاف and نون , یا , نون in line 10 allude?

3. Explain in Persian any three of the following and relate the 12
 stories or traditions to which they refer:—

(a) هرگز اعون حق حصار شود

عنکبوتیش پرده دار شود

(b) شوسماری ثنای او گوید

از دهائی رضای او جوید

- (c) زهر در کام او شکر گردد
سنگ در دست او گهر گردد
- (d) سوزنی چون دید با عیسی بهم
بخیه با روی او فگندش لا جرم
- (e) بست موی را کمر چون موی سر
کرد او را با سلیمان در کمر
خلعت اولاد عباسش بداد
طاوسین بی زحمت طاسش بداد

4. Reproduce in your own Persian the substance of the following 27 extracts and clearly set out the underlying thoughts in each:—

- (n) فاخته غائب ست گوید کو
تو اگر حاضری چه گوئی هو
حاضران را ز هیبت ست منال
گر ترا حصّه غیبت ست بنال
تا درین خطّه تکاپویی
یا همه پشت یا همه روئی
چون ازین خطه یکدو خطوت رفت
جان طالب عنان عشق گرفت
مردگی کفر و زندگی دین ست
هر چه گفتند مغز آن این ست
- (b) آدم از مادر عدم زاده
او چراغی بدو فرستاده

- (c) دیدۀ او بگاہ منزل خواب
تا سو عرش بر گرفته حجاب
زحمت آب و گل در این عالم
رحمتش نام کرده فضل قدم
حلقۀ حلقها بحلقۀ موی
سکنۀ شرعها بصفحۀ روی
غرض گن ز حکم در ازل او
آل الفکر آخر العمل او
عاشقان سوی حضرتش سرمست
عقل در آستین و جان بر دست
پیش توحید او نه کهنه نه نوست
همه هیچند هیچ اوست که اوست
پردۀ عاشقان رقیق ترست
نقش این پردها دقیق ترست
غالب عشق هست مغلوبش
خود ترا شرح داد مغلوبش
ابر چون ز آفتاب دور شود
عالم عشق پر ز نور شود

Answer ONE only of the two following sets of questions.

FIRST SET.

MANTIQU-UT TAIR OF 'ATTAR.

5. Paraphrase clearly the following lines into simple Persian 10
prose:—

جمله عاجز روی بر خاک آمدند
در خطاب ما عرفناک آمدند

من که باشم تا زخم لاف شناخت
 آن شناخت او را که جز با او نساخت
 چون جز او در هر دو عالم نیست کس
 با که سازد اینست سودا و هوس
 هست دریائی ز جوهر موج زن
 تو ندانی این سخن شش پنچ زن
 هر که او آن جوهر دریا نیافت
 لا شد و از لا نشان جز لا نیافت
 آن مگو چون در اشارت نایدت
 دم مزن چون در عبارت نایدت
 نه اشارت می پذیرد نه بیان
 نه کسی زو علم دارد نه نشان
 تو بمبانش اصلا کمال اینست و بس
 تو ز تو گم شو وصال اینست و بس
 تو در او گم شو حلوئی این بود
 هر چه این نبود فضوئی این بود
 جزو کل شد چون فرو شد جان بجسم
 کس نسازد زین عجایب تر طلسم

6. Write in your own Persian the story of شیخ صنعان as related 12
 in منطق الطیر.

Or,

Write in Persian an account of the life of شیخ فرید الدین عطار and
 comment upon his writing.

9. Explain and amplify in your own Persian the idea contained in the following lines :—

سالکان را بین بدرگاه آمده
 جمله پشتا پشت هم راه آمده
 هست با هر ذره درگاه دگر
 پس ز هر ذره بدوراه دگر
 توجه دانی تا کدامین ره روی
 وز کدامین ره بدان درگاه روی
 این زمان کورایان جوئی نهانست
 وان زمان کورا نهان جوئی عیانست
 گر عیان جوئی نهان آنکه بود
 وز نهان جوئی عیان آنکه بود
 در بهم جوئی چو بیچونست او
 آن زمان از هر دو بیرون ست او
 تو نکردی هیچ گم چیزی مجبوی
 هر چه گوئی نیست آن چیزی مگوی

SECOND SET.

HAFIZ SHIRAZI.

5. Paraphrase the following into simple Persian prose :—

10

سمن بویان غبار غم چو بنشینند بفشانند
 پربرویان قرار دل چو بستی—زند بستانند
 بفتراک جفا دلها چو بر بندند بر بندند
 ز زلف عنبرین جانها چو بفشانند بفشانند

بعمری یکنفس با ما چو بنشینند برخیزند
 نهال شوق در خاطر چو برخیزند بنشانند
 ز چشم لعل رمانی چو میخندند می بارند
 ز رویم راز پنهانی چو میبینند میخوانند
 سرشک گوشه گیران را چو دریابند دریابند
 رخ از مهر بسحر خیزان نگردانند اگر دانند
 دوی درد عاشق را کسی کو سهل ندارد
 ز فکر آنان که در تدبیر درمانند درمانند
 چو منصور آن مراد آنان که بردارند بردارند
 که با این درد اگر در بند درمانند درمانند
 در آن حضرت چو مشتاقان نیاز آرند ناز آرند
 بر این درگاه حافظ را چو میخوانند میرانند

6. Give in your own Persian the idea contained in the following 12 lines of Hafiz, and quote the Qur'anic passage to which they allude. Also explain the allusion contained in the 3rd line:—

در ازل پرتو حسنت ز تجلّی دم زد
 عشق پیدا شد و آتش بهمه عالم زد
 جلوۀ کرد رخت دید ملک عشق نداشت
 عین آتش شد از این غیرت و بر آدم زد
 مدّعی خواست که آید بتماشاگه راز
 آمد بر سینۀ نا محرم زد
 دیگران قرعۀ قسمت همه بر عیش زدند
 دل غم دیدۀ ما بود که هم بر غم زد

7. Compare and contrast between خواجۀ حافظ شیروزی and فرید الدین عطار as Sufi poets.

12

PERSIAN.

SECOND PAPER.

Examiner—SYED MUHAMMAD KHALIL AHMAD, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English *either* A or B :—

A.

شبی مشک رنگ و دراز و مجاور
 چو زلفین میعاد هجرانِ دلبر
 به لولو ازو فرق گردون مزیں
 بقیدرو ازو روی عالم مقیر
 کشیده مظللہ سپہ برثریا
 فروہشتہ دامنش برکوی عنبر
 چو بر روی فرعون بردست موسی
 بروی فلک برثریا منور
 هوا چون ضمیر ستمگار تیرہ
 ستارہ چو رخسار مومن بہ محشر
 ز هولش دل و طبع روہا گیرد
 دل شیرجنگی و طبع غضنفر
 چو عہد عدو جرم آفاق تیرہ
 چو تیغ یلان روی مریخِ احمر
 هوا زو بہ سیماب صبح خجستہ
 فرو شستہ زنگار از اطرافِ خاور

سوی باختر کرد شب روی و برزد
 سیاه و سپیده دم از کوه سر بر
 به لاله بدل کرد گردون بنفشه
 به پیروزه بخريد ياقوتِ اصفَر
 صبا را نداني ز عطارِ تبَّت
 زمين را نداني ز ديبيای سُستَر
 گلِ سُرخ چون رویِ خوبان ز خجلت
 بنفشه چو زلفِ جانان معطر
 گهی لُبر طاري و خورشيد رخشان
 چو تیغِ علي^۴ بود در کتفِ کافر
 گل آستن از باد مانند مریم
 هزاران پسرزاده از چار مادر
 جهان جوی در حسنِ او گشته حیران
 سخن گوی در وصف او مانده مضطر

B.

چه چیز بهتر و نیکوتر است در دنیای
 سپاه نه ملکی نه ضیاع نه رمئی
 سخن شریفتر و بهتر است سوی حکیم
 ز هرچه هست درین رهگذار بی معنی
 بدین سخن شده تو رئیس جانوران
 بدین فتاده شد ایشان بزیر تیغ و شرم
 سخن که بانگ تو است او جدا نگر بچه شد
 ز بانگ آن دگران جز بحرهای هجی

نگاه کن که بدین حرفهای چگونه خبر
 زبان زید رساند بجان عمرو همی
 درین حدیث خبر نیست سوی جانوران
 خرد گواهی من است اندرین قوی دعوی
 سخن به منزلت مرکبی است جان ترا
 برو توانی رفتن به سوی شهر هدی
 در بدی نکشاید مگر کلید سخن
 هم او کشاید درهای آفت و بلوی

گهی سخن شکر و قند و مرهم است و طلی
 زبان بکام در افعی است مرد دانا را
 حذرت باید کردن همی از آن افعی
 سخن سپارد بیهوش را به بند و بلا
 سخن رساند هشیار را بعهد و لوی
 باسپ و جامه نیکو چرا شدی منشغول
 سخت نیکو باید نه طیلسان و ردی
 دریغ دار ز نادان سخن که نیست صواب
 به پیش خوک نهادن نه من و نه سلوی
 رها شد از شکم ماهی و شب و دریا
 به یک سخن چو شنودیم یونس ابن متی
 دروغ گوی بآخر نکال شهره بود
 چنانکه سوی خردمند شهره شد مانی

2. Explain the allusions contained in the above two passages. 5
 3. What do you think of the metrical veracity of ناصر خسرو? 5
 Show from the above passages that he has failed in the Prosody.
 4. Translate into English, adding explanatory notes where necessary, either A or B. 10

A.

گر خداوند قضا کرد گناه بر سرِ تو
 پس گناه تو بقول تو خداوند ترا ست
 بدگذش زی تو خدا نیست بدین مذهب زشت
 گرچه میگفت نیازی کت ازین بیم قضا ست
 اعتقاد تو چنیین است و لیکن بزبان
 گوئی آن حاکم عدل است و حکیم الحکما ست
 با خداوند زیانت بخلاف دل تست
 با خداوند جهان نیز ترا روی ریاست
 بمیان جبر و قدر ره راه بجوی
 که سوی اهل خرد جبر و قدر درد و عذاب ست
 راست آنست ره دین که پسند خرد است
 که خرد اهل زمین را ز خداوند عطا ست

B.

بالای هفت چرخ مدور دو گوهرند
 کز نور هر دو عالم و آدم منورند
 اندر مشیمه عدم از نطفه وجود
 هر دو مصورند ولی نا مصورند
 محسوس نیستند و نگذجند در حواس
 مانند در نظر که نه مظلّم نه انورند

پروردگان دایه قدس اند در قدم
 گوهر نیند اگرچه باوصاف گوهرند
 زین روی آفرینش وزانسوی کائنات
 بیرون و اندرون زمانه مجاورند
 اندر جهان نیند هم ایشان و هم جهان
 در ما نیند در تن ما روح پرورند

5. What is Poetic License, and how far has *ناصر خسرو* availed himself of it? Give examples. 5

6. Translate in English either A or B:—

15

A.

چون بر زمین طلیعه شب گشت آشکار
 آفاق ساخت کسوت عباسیان شعار
 پیدا شد از کرانه میدان آسمان
 شکل هلال چون سرچوگان شهریار
 دیدم ز زر پخته بدین تخت لاجورد
 نونی که آن بخط خفی کرده شد نگار
 روی فلک چو لجه دریا و ماه نو
 مانند کشتی که ز دریا کند گذار
 یا بر مثال ماهی یونس میان آب
 آهنگ در کشیدن او کرده در کنار
 یا همچو یونس آمده بیرون ز بطن حوت
 افتاده بر کرانه دریا فکیف و زار
 در معرض خلاف جهانی ز مرد و زن
 قومیست در نظاره و خلقی در انتظار

من با خرد به چرخ خلوت شتافتم
 گفتم که ای نتیجه الطاف کردگار
 باز اینچه نقش بوالعجب و شکل نادرست
 ز کارگاه غیب همیگرد آشکار؟
 آن شاهد از کجاست که این چرخ شوخ چشم
 از گوش او برون کشد این نغز گوشوار
 گردون ز بازوی که درید ست این طراز
 گیتی ز ساعد که ربود ست این سوار
 گر جرم کوکب است چرا شد چنین دوتا
 و رپیکر مه است چرا شد چنین نزار
 گفت آنچه بر شمردی ازین جمله هیچ نیست
 دانی که چیست با تو بگویم به اختصار
 نعلِ سمنَدِ شاه جهانست کاسمان
 هر ماه بر سرش نهد از بهر افتخار
 گفتم که از مدائح ذاتِ مبارکش
 رمزی بگوی تا بودم از تو یادگار

B.

صبح دم چون کله بندد آه دود آسای من
 چون شفق در خون نشیند چشم شب پیمای من
 مجلس غم ساخت است و من چو بید سوخته
 تا بمن راق کُند مژگان می پالای من

رنگِ بازپچه است کار گنبدِ نارنجِ رنگ
 چند جوشم کز بروم نگذرد صفرای من
 روی خاک آلودِ من چون کاه بر دیوارِ حبس
 از زخم کهگل کند اشک زین اندای من
 مار دیدی در گیا پیچان کز خون در غارِ غم
 مار بین پیچیده در ساقِ گیا آسای من
 ازدها بین حلقه گشته خفته زیر دامنم
 زان نه جُنبم ترسم آگه گردد ازدرهای من
 تا نه ترسند این در طفل همدردِ اندر مهدِ چشم
 زیرِ دامن پوشم ازدرهای جانفرسای من
 دست آهنگر مرا در مارِ ضحاکِ کشید
 گنجِ افریدون چه سود اندر دلِ دانای من
 قطب وارم بر سرِ یک نقطه دارد چار میغ
 این در مریخِ ذنب فعل زحل سیمای من
 غصه هر روز و یا رب یا رب هر نیم شب
 تا چه خواهد کرد یا رب یا رب شب های من
 زانکه داغ آهنگی آخرِ دواى دردها ست
 ز آتش آه من آهَن داغ شد برپای من
 چون ربام کاسه خشک است و خزینه خالیست
 بس طنابم در گلو افکنده اند اعدای من
 سیامری سیوم نه موسی سیرتم تا زنده ام
 در ستم گوساله آلاید یدِ بیضای من

برگِ خرمایم که از من بادرز سازند خلق
 بادِ سردم در لبست و ریزِ ریزِ اجزای من
 نافه مشکم که گریبندم کنی در صد حصار
 سوی جان پرواز جوید طیب جان افزای من

7. Explain in Persian either A or B :—

10

A.

روزِ جشنِ عرب و وقتِ نشاطِ عجم است
 شاد زی گرچه فلک باعثِ اندوه و غم است
 خویشتن رنجِ مدار از قتلِ نقد مراد
 می خور انگار که این نیز وفا و کرم است
 شاهِ انجم ز کمینِ گاهِ افق بیرون تاخت
 وقتِ پرداختنِ مدحتِ شاهِ عجم است
 قصه ملکِ جم و جامِ مرعّ مشغو
 جامِ برکف نه و انکار که این ملکِ جم است
 ذکرِ باغِ ارم و آتشِ نمِ رود مکن
 آتشی بر کن و انکار که باغِ ارم است

B.

پیش که صبح بر دَرْد شَقَّه چترِ عنبري
 خیز مگر به برقِ می برقعِ صبحِ بردري
 پیش که غمزه زن شود چشم ستاره سحر
 بر صدقِ فلک رسان خنده جامِ جوهری

برکش میخِ غم ز دل پیش که صبح بر کشد
 این خشن هزار میخ از سر چرخ چنبیری
 گاه چو حال عاشقان صبح کند ملوئی
 که چو حلی دلبران مرغ کند نواگری

ز

حاصل وقت را نگر تا دم رفته بنگری

8. Pick out and explain in Persian the allusions in 7(A) and 7(B). 5
 9. What are the distinguishing characteristics of the *qasidas* of 5
 ظهیر فارابی and خاقانی ?
 10. Treat philologically the comparison of Adjectives in the Per- 5
 sian and English language.
 11. Render into idiomatic Persian the following:— 20

He who died at Azan sends
 This to comfort all his friends :
 Faithful friends ! It lies, I know,
 Pale and white and cold as snow ;
 And ye say, 'Abdullah is dead !'
 Weeping at the feet and head,
 I can see your falling tears,
 I can hear your sighs and prayers ;
 Yet I smile and whisper this,—
 I am not that thing you kiss ;
 Cease your tears and let it lie ;
 It was *mine*, it is not *I*.
 Allah glorious ! Allah good !
 Now thy world is understood ;
 Now the long long wander ends,
 Yet ye weep my erring friends,
 Farewell, friends ! Yet not farewell ;
 Where I am, ye too, shall dwell.
 When ye come where I have stepped,
 Ye will wonder why ye wept ;
 Ye will know by wise love taught,
 That here is all, and there is naught.
 Be ye certain all seems love,
 Viewed from Allah's throne above ;
 Be ye stout of heart and come
 Bravely onward to your home !
 La ilaha illallah ! !

PERSIAN.

THIRD PAPER.

Examiner—SHAMS-UL-ULMA-MAWLAVI VILAYET HOSSAIN.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

جواب تمام سوالات باید که در فارسی داده شود *

1. حالات و واقعات سلطان الفضلاء افضل الدین 15

خاقانی رحمه الله علیه بیان کنید و شرح اشعار ذیل بمعرض
تبیان آرید:—

فلک کجرو ترست از خط ترسا
مرا دارد مسلسل راهب آسا
پس از تعلیم دین از هفت مردان
پس از تاویل وحی از هفت قراء
پس از میقات سعی و حج و عمره
پس از قربان و تعظیم مصلی
مرا از بعد پنجه سال اسلام
فزیدد چون صلیم بند برپا
روم ز نار بندم زین تحکم
روم ناقوس بوسم زین تعدا
دگر قیصر سکالد راز زردشت
کنم زنده رسوم زند و استا
بسرگین خر عیسی را ببندم
رعاف جا ثلیق نا شکیبا

10 در طَبَقَةُ ثَالِث که مصنف کتاب تذکره دولت شاه
2. شعراء را که بسبک تحریر کشیده از انمیان صرف حالات ده
شاعر بیان کنید *

25 احوال حضرت فرید الدین عطار نیشاپوری رحمة
3. الله عليه يا احوال حضرت حکیم کامل نظامی گنجوی
رحمة الله عليه بیان کنید و اشعار ذیل را بفارسی سلیس
شرح دهید:—

سبحان خالقِ که صفاتش ز کبریا
در خاک عجز میفکند عقل انبیا
گر صد هزار قرن همه خلق کائنات
فکرت کنند در صفت عزت خدا
آخر بعجز معترف آیند کی اله
دانسته شد که هیچ ندانسته ایم ما

از سوال (۱) یا از سوال (ب) هر سوالی را که خواهند
تحریر نمایند *

سوال (۱)

20 مضمون عبارت مرقومه ذیل بزبان فارسی بیان
4. نمایید:—

قربان خاک پای مبارکت شوم فرمان واجب الاذعان
مانند وحی ربانی نازل گردید و فرق غلام فدوی را باوج فرقد
رسانید مضامین قضا آیین آن که مشعر بر تعیین افواج
و سپاه بود بر مراتب امید دولتمخواهان و بیم بدسگالان

افزود حق سبحانه و تعالی سایه آفتاب خسروانرا بر مفارق
جهانیان پاینده بداراد *

- 20 تعریف حکمت و تقسیم آن چنانکه در اخلاق
جلالی مذکور شده شرح دهید *

مطالب عبارت زیرین بفارسی ایضاح کنید:—

- 10 هرچند لذت شجاعت در بدایت نه نماید چه
مبادی آن مودی است بخوف هلاک اما بالآخرة لذات و
مذافع آن مشاهده گردد خواه در دنیا و خواه در آخرت خاصه
چون بذل نفس او در حمایت دین و تقویت شرع مبین
بوده باشد *

سوال (ب) .

- 20 خلاصه مضمون عبارت پسین بفارسی بیان کنید:—
آبای فضائل که ابتدای معالی بودند با بذات الدهر قرین
گردیدند و امهات مکارم که در دلبری بر پوی و با خوبیان
بربری برابری میکردند بر برو روی خود دره بجای دره
دیدند بیازره بی زار از معامله دوشینه گشتند و صوفیان از سواد
سودای شبانه گذشتند *

- 20 تعریف روح حیوانی و روح انسانی و فرق میان
هر دو روح بیان نموده شرح دهید که روح حیوانی از کدام
چیز ترکیب یافته *

- 10 شرح این عبارت بزبان فارسی کنید:—
بدانکه نماز ستون دین مسلمانی و بنیاد دین است
و پیشرو و سید همه عبادات است و هرکه این پنج نماز

فريضة بشرط خود و بوقت خود بجای آورد عههی بسته آمد اورا با حق تعالی که در امان و حمایت آن باشد و چون از کبائر دست برداشت هر گناه دیگر که بروی رود این پنج نماز چون کفارت آن باشد و رسول صلی الله علیه و سلم گفت مثل این پنج نماز چون جوی آب روشن است که بدر سرای کسی میگردد و او هر روز پنج بار بآن میشود ممکن بود که بروی هیچ شوح بماند گفتند یا رسول الله گفت این پنج نماز گناه را همچنان ببرد که آب شوح را *

PERSIAN.

FOURTH PAPER.

Examiner—MUFTI M. ANWARUL HAQ, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. عبارت ذیل را در فارسی یا انگریزی شرح دهید:—

15

(قَالَ لَهُ مُوسَىٰ هَلْ أَتَّبِعُكَ عَلَىٰ أَن تُعَلِّمَ مِنِّي مَا عَلَّمْتَ
رُسُلَنَا) ای صوابا ارشد به و فی قرأه بضم الراء و
سکون الشین و سألہ ذلک لان الزیادة فی العلم مطلوبة (قَالَ
اِنَّكَ لَن تَسْتَطِيعَ مَعِيَ صَبْرًا وَ کَیْفَ تَصْبِرُ عَلٰی مَا لَمْ
نَحِطْ بِہٖ خُبْرًا) فی الحدیث السابق عقب هذه الآية

یا موسیٰ انی علّی علم من علم الله علمنا به لا تعلمه
وانت علی علم من علم الله علمک الله لا اعلمه وقوله
خبراً مصدر بمعنی لم تحط ای لم تخبر حقیقته (قَالَ
سَتَجِدُنِيْ اِنْ شَاءَ اللهُ صَابِرًا وَّ لَا اَعْصِيْ) ای و غیر عاص
(لَكَ اَمْرًا) تاملنی به - و قید بالمشیئة لانه لم یکن علی
ثقة فی نفسه فیما التزم - و هذه عادة الانبیاء و الاولیاء ان
لا یثقوا الی انفسهم طرفه عین (قَالَ فَاِنْ اَتَّبَعْتَنِيْ فَلَا تَسْأَلْنِيْ)
و فی قرأة بفتح اللام و تشدید النون (عَنْ شَيْءٍ) تذکره منی
فی علمک و اصبر (حَتَّى اَحْدِثَ لَكَ مِنْهُ ذِكْرًا) ای اذکره
لک بعلته فقبل موسیٰ شرطه رعاية لادب المتعلم من العالم
(فَانْطَلَقَا) یمشیان علی ساحل البحر (حَتَّى اِذَا رَكِبَا فِي
السَّفِينَةِ) التي مرت بهما (خَرَقَهَا) الغضربان اقتلع لوحا او
لوحین من جهة البحر بغاس لما بلغت اللج *

5 (a) حدیثی که اندرین باب وارد شده و در کتاب 2.

شما مذکور است بر سبیل اجمال بفارسی شرح دهید *

5 (b) قرات دیگر لفظ "رُشْدًا" چیست - و به خواندن

"فلا تسألني" بفتح لام و تشدید نون در معنی چه فرق شود -

نیز بفرمائید که این هر دو لفظ کدام صیغه دارند *

5 (c) قصه اصحاب کهف را مختصراً بفارسی بیان کنید *

20 یکی از دو عبارت ذیل را در فارسی یا انگریزی 3.

ترجمه کنید :-

(ا) و ما عدا ذلک فخطري ابو عذرة - و مقتضب حلوه

و مرة - و هذا مع اعترافي بان البديع رحمه الله سباق غایات

و صاحب آیات - و ان المتصدي بعده لانشاء مقامة - و لو
اوتي بلاغة قدامة لا يغترف الامن فضالته و لا يسرى ذلك
المسرى الا بدلالته - و لله در القائل *

* بيت *

فلو قبل مبكها بكيت صباة
بسعدي شفيت النفس قبل التدم
ولكن بكت قبلي فعيم لي البكا
بكها فقلت الفضل للمتقدم

و ارجو ان لا اكون في هذا الهذر الذي اوردته و المورد
الذي تورده كالباحث عن حتفه بظلفه و الجادع مارن انفه
بكفه - فالحق بالاخسرين اعمالا الذين ضل سعيهم في الحياة
الدنيا و هم يكسبون انهم يكسبون صنعا - على اني و ان
اغض لي الفطن المتغابي و نضح عني المحب المكابي
لا اكاد اخلص من غمر جاهل اودي غمر متجاهل *

(ب) و لبثنا على ذلك برهة ينشي لي كل يوم نزهة
و يدرأ عن قلبي شبهة لي ان جدحت له يد الاملاق كُاس
الفراق و اغراه عدم العراق بتطبيق العراق و لفظته معاوز الافراق
الى مفاوز الآفاق و نظمه في سلك الرفاق خفوق راية الاخفاق
فشكد للرحلة غرار عزيمته و ظعن يقتاد القلب بازيمته *

* بيت *

فما راقني من لا قني بعد بعده
و لا شاقني من ساقني لوصاله

و لا لاح لي مذندند لفضله
و لا ذو خلال حاز مثل خلاله

و استسر عني حيناً و لا اعف عريفاً و لا اجد عنه
مبيناً - فلما ابت من غربتي الى منبت شعبي
حضرت دار كتبها التي هي منندي المتأدبين و ملتقي
القاطنين منهم و المتغربين - فدخل ذو لحية كثة و هيئة رثة
فسلم على الجلاس و جلس في اخريات الناس ثم اخذ
يبدئي ما في وطابه و يعجب الحاضرين بفصل خطابه -
فقال لمن يليه ما الكتاب الذي تظرفيه *

4. عبارت ذیل را با اعراب بنویسید: — 10

و قد تزعم اليهود ان جميع ما ثبت عندهم على ما
في التوراة مما بين فيها من لدن خلق الله ادم الى وقت
الهجرة و ذلك التوراة التي هي في ايديهم اليوم اربعة الاف
سنة و ستمائة سنة و اثنتان و اربعون سنة و قد ذكروا تفصيل
ذلك بولادة رجل رجل و بني بني و موته من عهد ادم الى
هجرة نبينا محمد صلعم و ساذكر تفصيل ذلك ان شاء الله و
تفصيل غيرهم ممن فصله من علماء اهل الكتب و غيرهم
من اهل العلم بالسير و اخبار الناس *

5. (a) بحثی کہ در تائیم طبري دربارهٔ " مقدار جميع 10

زمان از ابتدا تا انتها " وارد شده - خلاصهٔ آنرا بفارسي تحرير
کنید: —

(b) الفاظ ذیل کدام صيغه دارند مع تحليل آنها بنویسید: — 5

أَبَتْ - سَادَرُ - تَعْلَمْنَ - كَمْ تَحِطُ - لَا يَتَّقُوا *

6. عبارت ذیل را در فارسی شرح نمائید :—

انها جزیره في بحر العین و تتصل بجزائر زانج و المسیر
الیها بالنجوم و انما سمیت بهذا الاسم لان بها شجرة
لها ثمرة على صور النساء معلقات من الشجرة بشعورها و اذا
ادركت یسمع منها صوت واق واق و اهل تلك البلاد يفهمون
من هذا الصوت شیئا یطیرون به - و قيل هي بلاد كثيرة
الذهب حتی ان اهلها یتخذون سلاسل کلابهم و اطواق قرودهم
من الذهب و یاتون بالقمصان المنسوجة من الذهب و حکي
موسی بن المبارک السیرا في انه دخل هذه البلاد و قد
ملکتها امرأة و انه راها على سریر عریانة و على راسها تاج و
عندها اربعة الاف و صیفة عراة ابکارا *

7. (a) جمع یا مفرد الفاظ ذیل بنویسید :—

نساء - شجرة - سلاسل - قروود - قمصان - سریر - تاج - عراة

(b) برخی از احوال صاحب معجم البلدان به فارسی بنکارید *

PERSIAN.

FIFTH PAPER.

Examiner—O. F. JENKINS, ESQ., I.C.S.

Candidates are required to give their answers in their own words
as far as practicable.

The figures in the margin indicate full marks.

1. Translate :—

رسیدگان قلعه بصیرت را پوشیده نیست که تهذیب اخلاق
ملل و تذهیب حال امم و تکمیل نقائص مملکت را در هر عهد

و زمان طریقی خاص و اقتضائی مخصوص است . این دوره
 طلائی و عهد نورانی که آفتاب علم و نور معرفت کران تا کران
 عالم را احاطه کرده و باشندگان افریقای شمالی و امریکای
 جنوبی را با هوش و فرهنگ ساخته و در جمیع ملل برخلاف
 سلف افرادی که بخواندن و نوشتن آشنا باشند زیاد شده مؤثر
 ترین مواعظه حسنه و با نفوذ ترین نصایح پسندیده در سایه
 رسائلیکه محض تنفیج مراتب حقه و توضیح معایب واضحه
 اشاعت یابد و طرق اصلاح و نظائر آن به نیکوترین وجهی
 با الفاظ شیرین و عبارات نمکین و سخنان مفرح در طی امثله
 معروفه و تلو حکایات مشهوره بیان شود *

2. Translate:—

35

نسیم خلد میوزد مگرز جویبارها
 که بوی مشک میدهد هوای مرغزارها
 فراز خاک و خشتها دمیده سبز کشتها
 چه کشتها بهشتها نه صد نه ده هزارها
 به چنگ بسته چنگها به نای هشته زنگها
 چکاوها کلفگها تذروها هزارها
 ز نای خویش فاخته دو صد اصول ساخته
 ترانها نواخته چو زیرو بم تازها
 ز خاک رسته لاله چو بسدین پیالها
 ببرگ لاله زالها چو در شفق ستارها
 فکده اند همه کشیده اند زمزمه
 بشاخ سروین همه چه کبکها چه سارها

نسیم روضه ارم جہد بمغز دمبدم
 ز بس دمیدہ پیش ہم بطرف جویبارها
 بہارها بنفشہا شگوفہا شقیقہا
 شامہا خجستہا اراکہا عرارها
 ز ہر کرانہ مستہا بدستہا پیالہا
 ز مغز می پرستہا نشانده می خمارها
 ز ریزش سحابہا بر آبہا حبابہا
 چو جوی نقرہ آبہا روان در آبشارها
 فراز سرو بوستان نشستہ اند قمیریان
 چو مقربان نغز خوان بزمردین منارها
 فکندہ اند غلغلہ دو صد ہزار یکدلہ
 بشاخ گل پی گلہ زرنج انتظارها
 درختہای بارور چو اشران بار بر
 ہمی ز پشت یکدگر کشیدہ صف قطارها
 مہارکش شمالشان سحابہا رحالشان
 اصولشان عقالشان فزوعشان مہارها

NOTE.—Only FIVE out of the following nine questions are to be attempted.

3. What are the sources of our knowledge of the Persian language in the (a) Achaemenian, (b) Sasanian periods? 10
4. Illustrate the relationship of Sanskrit and Persian in the Aryan family of languages. 10
5. Translate and give the modern Persian forms of the following Zend words and explain the phonetic changes undergone by each :—
brātar; yavan; zasta; mahrka; āp; hvato; spāda; kauṭa; madhu; pādha. 10
6. Give the meaning of each of the following words in Iranian Persian and explain how it is commonly misused in Indian Persian :— 10

زر - سرکار - غریب - خراب - تکلیف - هوا - خفہ - غصہ -

حجام - مشکور

7. Translate the following archaic words found in the Shahnama, 10
and give the modern equivalent of each:—

ازار - چک - دستور - ژرف - شید - کیهان - گواژه - واژونه -

یله - خاور

8. Explain the general signification in relation to the root idea of 10
each of the eight derived forms of the Arabic Verbal noun used in Persian.

9. Translate and re-write with diacritical points (اعراب) :— 10
- مومن - مستغنی - تعالی - ایما - اتصال - محیط - محتاج - مدارات
- مضمون - منفذی .

Give the primary root of each of the above.

10. Translate and derive:— 10
- کنشدا - ارجمند - بازار - بیگلر -
- مرزبان - میرزا - خرچنگ - بیگی - خانقاه - خانمان - خانواده

PERSIAN.

SIXTH PAPER.

Examiner—AQA MUHAMMAD KAZIM SHIRAZI.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Translate very freely into idiomatic Persian:—

70

A.

This world-wide conflagration which we term War turns our thoughts to more sublime sentiments. Peace, peace, is spoken and debated everywhere. War has been from the Stone Age a vast preoccupation of man, and heartrending accounts are recorded as if, in the letters of human blood throughout history, wars are waged, peace declared and kept for a time, but the spirit of blood "survived in the belligerents like smouldering embers." It may be concluded from all that we see and hear to-day that war is inevitable. It is a phenomenon of the survival of the fittest, as the unvaried testimony of all ages and of all nations affirms. There is no piece in earthly concerns; for the world, with all the opulence of mirth and gaiety, is vacant and lacks in essentials of the soul. The world being so and we in such bewilderment, shall our souls be suffered to see the pungent contrast and feel the deception? Let us reflect and take a mental and spiritual retreat. We turn with disgust from all that is superficial and hollow and enter to seek solace in the spiritual zone.

The mind, a highest work of God, His mirror and representative, has guided our spiritual leader and it will guide us also. The mind, which is our chief distinction, can never be too reverently spoken of; and it is of mind that we wish to speak.

B.

When the question of the best agency to provide for the good of man is in view, the mind instinctively wanders to those sources of human happiness which ensure man's worldly well-being. From worldly well-being is understood the consensus of all those elements which make for human uplift in all the various branches of his activity. They include politics, the pursuit of arts, of war and peace, as much as those sides of human conduct which lead to his moral well-being. These sources are either Divine or human. In the former case, they take the form of the manifestations, of which the records exist, have always been distinguished from the product of every other agency in being of so universal an application as to defy all barriers of race, colour, and usage. This is the one great testimony of their origin in the great centre of all law. But perhaps they would differ in their individual character, assuming the form of this creed in one age, and reappearing in a different guise to meet the requirements of changed environments and times. It would call into play man's highest intelligence to discern the purest gem out of a whole mine of what passes for revelation, so persistent has been the effort of man to disfigure the result of Divine dispensation.

2. (a) What is Rhetoric? What purpose does it serve in literature? Define its scope in Persian.

(b) Give the true signification of the figure called مجاز مرسل. Classify its different varieties, and give examples.

(c) Define with examples طباق and تديج and indicate the points of similarity between them.

3. Name and explain the figures in *any two* of the following:—

(a) نگه دار مارا ز راه خطا

خطا در گذار و صواب نما

(b) زلف آشفته و خوی کرده و خندان لب مست

پیرهن چاک و غزلخوان و صراحی در دست

نرگش عربده جوی و لبش افسوس کنان

نیم شب مست ببالین من آمد بنشست

(c) علم بپیش دهد به بین دلرا

روح جنبش دهد ببین گلرا

- (d) شود کوه آهن چو دریای آب
اگر بشنود نام افراسیاب

4. What do you understand by *وکن*? Name and explain the 4
essential parts of which it is composed. Give examples.

5. State the rules observed in scansion regarding omission and 5
insertion of the letters—الف - و - ی - ا - ن. Give examples.

6. Explain any three of the following terms:—

ضرب - تشبیب - صدر - تسبیغ - دخیل - تاسیس

7. Scan one of the following and name the metre:—

3

- (a) ای مه جبین که یار دل آزاری
سویم ننگه کن ز سرباری

- (b) فغان کدان هر سحری بکوی تو میگذرم
چو نیست ره سوی تو ام بپام در میفگرم

PERSIAN.

SEVENTH PAPER.

Examiner—Z. R. ZAHID SUHRAWARDY, ESQ., M.A., B.L.

*Candidates are required to give their answers in their own words
as far as practicable.*

Answer any FIVE questions of each of the Groups A and B.

The questions are of equal value.

GROUP A.

HISTORY OF PERSIAN LITERATURE.

1. Trace the genesis of the Persian language, noting the impress on it of the various foreign conquests of Persia, with special reference to the influence of Arab domination on the language and literature of Persia.

2. What do you consider to be the Renaissance period of Persian literature? Justify your answer by a review of the period preceding it and by a reference to the authors and their literary activities that marked the Renaissance.

3. Write a short discourse on the sources of the Shahnama, the persons who took part in its composition, and its style and purpose.

4. It is said that Jami was the last poet of the classical school. Refute or justify the assertion.

5. Name some Persian 'poets laureate,' noting their works and the Princes under whom they flourished.

6. Write what you know about the following works and their authors:—*Kimia-i Sa'adat*, *Durra i-Nadira*, *Silsilatuzzahb*, *Chahar Maqala*, *Nal-Daman*.

Review the life and works of Amir Khusro.

GROUP B.

MUSLIM HISTORY.

1. Describe the last great battle between the Arabs and the Persians which sealed the fate of Persia.

2. What was the Persian national standard (banner) at the time of the Arab conquest? Describe the events that brought about its existence and loss.

3. Write short notes on 'the Companion of the Cave,' 'the Sword of God,' 'the Battle of the Camel,' 'Amirul Mominin,' 'Din-i-Ilahi.'

4. Give a short account of the reign of Sultan Sanjar.

5. When and how was the Khedival dynasty established in Egypt?

6. Write a short note on the fiscal policy of Akbar.

7. When and by whom was the Nizamat of Bengal, Behar and Orissa founded? Give a short history of it down to the loss of its sovereign authority.

PERSIAN.

EIGHTH PAPER.

Examiner—Z. R. ZAHID SUHRAWARDY, ESQ., M.A., B.L.

Candidates are required to give their answers in their own words as far as practicable.

Write an essay in English on *one* of the following subjects:—

(a) The Ismailias—their religious creed and origin, their place in Persian history, their different sects and the present-day followers of the creed in Asia and Africa.

(b) Influence of women in Islam and the part they have played in Muslim history.

(c) جنگ هفتاد و دو ملت همه را اندر بند

چون ندیدند حقیقت را افسانه زدند

GREEK.

FIRST PAPER.

Examiner—DR. H. STEPHEN, M.A., D.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. (a) Explain the plan and purpose of Herodotus in writing his history. What do you believe to have been the extent of the travels of Herodotus? Whom does he think to have been τὸν πρῶτον ὑπάρχοντα ἀδικῶν ἔργων ἐς τοὺς Ἕλληνας? What does he say about the origin of the Ionian and Dorian races? What account does he give of the religion of the Persians? How was Babylon taken? 12

Translate:—

(b) Ἐπεὶ ὦν δὴ ἐξεγέρθη ὁ Κῦρος, ἐδίδου λόγον ἑαυτῷ περὶ τῆς ὀψιος· ὥς δὲ οἱ ἐδόκεε μεγάλη εἶναι ἡ ὄψις, καλέσας Ὑστάσπεα καὶ ἀπολαβὼν μόνον εἶπε· Ὑστασπεες, παῖς σὸς ἐπιβουλεύων ἐμοί τε καὶ τῇ ἐμῇ ἀρχῇ ἕαλωκε· ὥς δὲ ταῦτα ἀτρεκέως οἶδα, ἐγὼ σημανέω· ἐμεῦ θεοὶ κηδέσται, καὶ κοὶ πάντα προδεικνύουσι τὰ ἐπιφερόμενα· ἤδη ὦν ἐν τῇ παροχομένῃ νύκτι εὐδων, ζίδον τῶν σῶν παίων τὸν πρεσβύτατον ἔχοντα ἐπὶ τῶν ὤμων πτέρυγας· καὶ τουτέων τῇ μὲν τὴν Ἀσίην, τῇ δὲ τὴν Ἑυρώπην ἐπισκίαζειν· οὐκ ὄν ἐστὶ μηχανὴ ἀπὸ τῆς ὀψιος ταύτης οἰδεμία, τὸ μὴ κείνον ἐπιβουλεύειν ἐμοί· σὺ τοίνυν τὴν ταχίστην πορεύεο ὀπίσω ἐς πέρσας, καὶ ποίεε ὅπως ἐπεὰν ἐγὼ τὰδε καταστρεψάμενος ἔλθω ἐκεῖ, ὥς μοι καταστήσης τὸν παῖδα ἐς ἔλεγχον.

Give the Attic forms of κηδέσται, πορεύεο, and ποίεε.

2. (a) What was the purpose of Thucydides in writing his history, and his opinion as to the use of history? Compare his method with that of Herodotus. Give the dates of the Peloponnesian War. In what year does the history break off? What is his purpose in introducing speeches? 12

(b) Any two of the following:—

(1) Καὶ μεμνήσθαι χρή ἡμᾶς ὅτι νεωστὶ ἀπὸ νόσου μεγάλης καὶ πολέμου βραχὺ τι λελωφῆκαμεν, ὥστε καὶ χρήμασι καὶ τοῖς σώμασιν ὑψέσθαι· καὶ ταῦτα ὑπὲρ ἡμῶν δίκαιον ἐνθάδε ἀναλῶν, καὶ μὴ ὑπὲρ ἀνδρῶν φρυγᾶδων τῶνδε ἐπικουρίας δεομένων, οἷς τό τε ψεύσασθαι καλῶς χρήσιμον καὶ τῷ τοῦ πέλας κινδύνῳ, αὐτοὺς λόγους μόνον παρασχομένους, ἢ κατορθωσάντας χάριν μὴ ἀξίαν εἰδέναί ηἱ παύσαντάς που τὸν φίλους ξυναπολέσαι.

Explain historical allusions.

(2) Φήσκει τις δημοκρατίαν οὔτε ξυνετὸν οὔτ' ἴσον εἶναι, τοὺς δ' ἔχοντας τὰ χρήματα καὶ ἄρχειν ἄριστα βελτίστους. ἐγὼ δὲ φημι

πρῶτα μὲν δῆμον ξύμπαν ὠνομάσθαι, ὀλιγαρχίαν δὲ μέρος, ἔπειτα φύλακας μὲν ἀρίστους εἶναι χρημάτων τοὺς πλουσίους, βουλευσῆαι δ' ἂν βέλτεστα τοὺς ξυνοτούς, κρίναι δ' ἂν ἀκούσαντας ἀριστα τοὺς πολλούς, καὶ ταῦτα ὁμοίως καὶ κατὰ τὰ μέρη καὶ ξύμπαντα ἐν δημοκρατίᾳ ἱσομοιρεῖν. ὀλιγαρχία δὲ τῶν μὲν κινδύνων τοῖς πολλοῖς μεταδίδωσι. τῶν δ' ὠφελίμῳ οὐ πλεονεκτεῖ μόνον, ἀλλὰ καὶ ξύμπαν ἀφελομένη ἔχει.

Translate. State speaker and occasion. To which side do you think that Thucydides inclined?

(3) Τούτων ἐγὼ ἡδίω μὲν ἂν εἶχον ὑμῖν ἕτερα ἐπιστέλλειν, οὐ μέντοι χρησιμώτερά γε, εἰ δεῖ σαφῶς ὑμᾶς εἰδότες τὰ ἐνθάδε βουλευσασθαι, καὶ ἅμα τὰς φύσεις ἐπιστάμενος ὑμῶν, βουλομένων μὲν τὰ ἥδιστα ἀκούειν, αἰτιωμένων δὲ ὑστερον, ἦν τι ὑμῖν ἀπ' αὐτῶν μὴ ὁμοίον ἐκβῆ, ἀσφαλέστερον ἡγησάμην τὸ ἀληθὲς δηλῶσαι.

Translate. Parse ἡδίω. To whom are these words addressed? How far was Nicias himself responsible for the disaster at Syracuse?

(4) Ἐτυχον δὲ καὶ βρονταί τινες ἅμα γεγόμεναι καὶ ὕδωρ, οἷα τοῦ ἔτους πρὸς μετώπωρον ἡῆθ' ὄντος φιλεῖ γίνεσθαι· ἀφ' ὧν οἱ Ἀθηναῖοι μᾶλλον ἐτι ἠθύμουν, καὶ ἐνόμιζον ἐπὶ τῷ σφετέρῳ ἀλέθρῳ καὶ ταῦτα πάντα γίνεσθαι. ὀναπαυομένων δ' αὐτῶν οἱ Συρακοσίοι πέμπουσι μέρος τι τῆς στρατιᾶς ἀποτεχιούντας αὐ ἐκ τοῦ ὅπισθεν αὐτοὺς ἢ προελλύθεσαν.

Translate. Explain the circumstances. Parse ἀποτεχιούντας.

3. (a) State briefly the chief argument of Leptines in favour of his law, and the chief argument of Demosthenes against it. What were *λειτούργειαι* and *ἀτελείαι*? The most striking characteristics of Demosthenes were said to be *μέγεθος* and *δεινότης*; do you find these exemplified in the orations read?

(b) Any two of the following:—

(1) εἰ γάρ οἱ μὲν εἰδότες καὶ παθόντες ἄξια τούτων ἐνόμιζον εὖ πάσχειν, ἡμεῖς δ' οἱ λόγῳ ταύτ' ἀκούοντες ὡς ἀναξίων ἀφαιρησόμεθα, πῶς οὐχ ὑπέρδεινον ποιήσομεν; αὐτὸς τοίνυν ἐστὶ μοι λόγος οὗτος καὶ περὶ τῶν τοὺς τετρακοσίους καταλυσάντων, καὶ περὶ τῶν ὅτ' ἔφηνεν ὁ δῆμος χρησίμους αὐτοὺς παρασχόντων· πάντας γὰρ αὐτοὺς ἡγοῦμαι δεύνεσθαι ἂν παθεῖν, εἰ τι τῶν τότε ψηφισθέντων αὐτοῖς λυθείη.

Translate. Explain the historical allusions.

(2) σκεψόμεθα δὴ τίνας ἡμῖν εἰσποιεῖ χορηγούς, εἰς ἐκείνας τὰς λειτουργίας, καὶ πόσους, ἐὰν μὴ τούτῳ προσέχωμεν, ἀφήσει. οἱ μὲν τοίνυν πλουσιώτατοι τριηραρχοῦντες αἰετῶν χορηγῶν ἀτελεῖς ὑπάρχουσιν, οἱ δ' ἐλάττω τῶν ἱκανῶν κεκτημένοι, τὴν ἀναγκαίαν ἀτέλειαν ἔχοντες, ἔξω τοῦ τέλους εἰσὶ τούτου· οὐκοῦν τούτων μὲν οὐδετέρων οὐδεὶς διὰ τὸν νόμον ἡμῖν προσέσται χορηγός.

Translate. Explain *χορήγαι* and *τριημήρχαι*.

(3) Καὶ δὴ κατὰ τοῦτο τὸ χωρίον, ὡς ἄνδρες δικασταί, γενομένης ἐπομβρίας συνέθη τὸ ὕδωρ ἐμθαλεῖν, ἀμεληθὲν δὲ, οὐπω τοῦ πατρὸς ἔχοντος αὐτό, ἀλλ' ἀνθρώπου δυσχεραίνοντος ὅλως τοῖς τόποις καὶ μᾶλλον ἀστικοῦ, δις καὶ τρίς ἐμθαλὸν τὸ ὕδωρ τὰ τε χωρί' ἔλνυ, ἡ αἰὼν καὶ μᾶλλον ὠδοποιεῖ. διὸ δὴ ταῦθ' ὁ πατὴρ ὕρῳ, ὡς ἐγὼ τῶν εἰδύτων ἀκούω, καὶ τῶν γειτόνων ἐπινεμόντων ἅμα καὶ βαδιζόντων διὰ τοῦ χωρίου, τὴν αἵμασιάν περιωκοδόμησε ταύτην.

Translate. Explain briefly the dispute between Kallikles and Tisias, and how Demosthenes settled it.

4. (a) Sketch Plato's view as to what constitutes a liberal education, explaining especially his view of the importance of Geometry in education. State his opinion with regard to Homer and the poets, and the reasons which he gives for it. 20

(b) Any three of the following :—

(1) Καὶ ἐγὼ τε καὶ ὁ Πολέμαρχος δέισαντες διεπτοήθημεν· ὁ δ' εἰς τὸ μέσον φθεγγόμενος Τίς, ἔρη, ὑμᾶς πάλαι φλυαρία ἔχει, ὦ Σώκратες; καὶ τί εὐθίξεσθε πρὸς ἀλλήλους ὑποκατακλινόμενοι ὑμῖν αὐτοῖς; ἀλλ' εἴπερ ὡς ἀληθῶς βούλει εἰδέναι τὸ δίκαιον ὃ τι ἔστι, μὴ μόνον ἐρώτα μηδὲ φιλοτιμοῦ ἐλέγχων, ἐπειδὴν τίς τι ἀποκρίνηται, ἐγνωκὼς τοῦτο, ὅτι ῥᾶν ἐρωτᾶν ἢ ἀποκρίνεσθαι, ἀλλὰ καὶ αὐτὸς ἀπύκνιναι καὶ εἰπεῖ τί φῆς εἶναι τὸ δίκαιον· καὶ ὅπως μοι.

Translate. Who is the speaker here, and what is the doctrine which he maintains so fiercely?

(2) ἔστέ μὲν γὰρ δὴ πάντες οἱ ἐν τῇ πόλει ἀδελφοί, ὡς φήσιν πρὸς αὐτοὺς μυθολογούντες, ἀλλ' ὁ θεὸς πλάττων, ὅσοι μὲν ὑμῶν ἱκανοὶ ἄρχειν, χρυσὸν ἐν τῇ γενέσει ξυνέμιξεν αὐτοῖς, δὴ τιμιώτατόν ἐστιν· ὅσοι δ' ἐπέκουροι, ἄργυρον· σίδηρον δὲ καὶ χαλκὸν τοῖς τε γεωργοῖς καὶ τοῖς ἄλλοις δημιουργοῖς. ἅτε οὖν ξυγγενεῖς ὄντες πάντες τὸ μὲν πολὺ ὁμοίους ἂν ὦν αὐτοῖς γενῶντε, εἴ τι δ' ὅτε ἐκ χρυσοῦ γεννηθεῖν ἂν ἀργυροῦ καὶ ἐξ ἀργυροῦ χρυσοῦν ἔκγονον καὶ ἅλλα πάντα οὕτως ἐξ ἀλλήλων.

Translate. Explain what Plato means by a *muthos*, and what use he makes of *muthos* in his philosophy.

(3) Πάλιν τοῖνυν, ἦν δ' ἐγώ, λέγωμεν, ὡς ἐξ ὀλιγαρχικοῦ δημοκρατικὸς γίγνεται. φαίνεται δέ μοι τὰ γε πολλὰ ὥδε γίνεσθαι. Πῶς; Ὅταν νέος τετραμμένος, ὡς νῦν δὴ ἐλέγομεν, ἀπαιδεύτως τε καὶ φειδωλῶς γεύσῃται κηφύων μέλιτος, καὶ ξυγγένῃται αἰθρῇ θηρσὶ καὶ δεινοῖς, παντοδαπὰς ἡδονὰς καὶ ποικίλας καὶ παντοίως ἐχούσας δυνάμεις σκευάζειν, ἐνταῦθ' αὖτε οἷον εἶναι ἀρχὴν αὐτῷ μεταβολῆς ὀλιγαρχικῆς τῆς ἐν αὐτῷ εἰς δημοκρατικὴν.

Translate. Sketch Plato's opinion of democracy and the individual character corresponding to it.

(4) Οὐκ οὖν τιθώμεν ἀπὸ Ὁμήρου ἀρξαμένους πάντας τοὺς ποιητικούς μιμητὰς εἰδύλων ἀρετῆς εἶναι καὶ τῶν ἄλλων περὶ ὧν ποιοῦσι, τῆς δὲ ἀληθείας οὐχ ἄπτεσθαι, ἀλλ' ὥσπερ νῦν δὴ ἐλέγομεν, ὁ ζωγράφος

φος σκυτοτόμον ποιήσῃ δοκοῦντα | εἶναι, αὐτός τε οὐκ ἐπαίων περὶ σκυτοτομίας καὶ τοῖς μὴ ἐπαίουσιν, ἐκ τῶν χρωμάτων δὲ καὶ σχημάτων θεωροῦσιν; Πάνυ μὲν οὖν. Οὕτω δὲ, οἶμαι, καὶ τὸν ποιητικὸν φήσομεν χρώματ' ἅττα ἐκάστων τῶν τεχνῶν τοῖς ὀνόμασι καὶ ῥήμασιν ἐπιχρωματίζειν αὐτὸν οὐκ ἐπαίοντα ἀλλ' ἢ μιμῆσθαι.

Translate. Do you think this a correct view of the nature of poetry—that it is wholly *μίμησις*?

5. (a) Explain Aristotle's view of the relation between Politics and Ethics and the purpose of each. What does he consider to be τὸ ἀρίστον, and what difficulty does he find in defining it? What is the precise meaning of *ἀρετή*, and the distinction between *ἀρετή ἡθικὴ* and *διανοητικὴ*, and the way of cultivating each? What is the importance of τὸ μέσον?

(b) Translate any two of the following:—

(1) περὶ δὲ τῆς εὐδαιμονίας, τί ἐστίν, ἀμφισβητοῦσι καὶ οὐχ ὁμοίως οἱ πολλοὶ τοῖς σοφοῖς ἀποδιδύασιν. οἱ μὲν γὰρ τῶν ἐναργῶν τι καὶ φανερῶν, οἷον ἡδονὴν ἢ πλοῦτον ἢ τιμὴν, ἄλλοι δ' ἄλλο, πολλάκις δὲ καὶ ὁ αὐτὸς ἕτερον νοσήσάκ' μὲν γὰρ ὑγίειαν; πενόμενος δὲ πλοῦτον συνειδότες δ' ἑαυτοῖς ἄγνοίαν τοὺς μέγα τι καὶ ὑπὲρ αὐτοὺς λέγοντας θαυμάζουσιν.

(2) οἱ στρατιῶται δὲ δειλοὶ γίνονται, ὅταν ὑπερτείνῃ ὁ κίνδυνος καὶ λείπωνται τοῖς πλήθεσι καὶ ταῖς παρασκευαῖς· πρῶτοι γὰρ φεύγουσι, τὰ δὲ πολιτικὰ μένοντα ἀποθνήσκει, ὅπερ καὶ ἐπὶ τῷ Ἑρμαίῳ συνέβη. τοῖς μὲν γὰρ αἰσχροὺς τὸ φεύγειν καὶ ὁ θάνατος τῆς τοιαύτης σωτηρίας αἰρετώτερος· οἱ δὲ καὶ ἐξ ἀρχῆς ἐκινδύνευον ὡς κρείττους ὄντες, γνόντες δὲ φεύγουσι, τὸν θάνατον μᾶλλον τοῦ αἰσχροῦ φοβούμενοι· ὁ δ' ἀνδρείος οὐ τοιοῦτος.

(3) ἐν δὲ ταῖς ὁμιλίαις καὶ τῷ συζῆν καὶ λόγων καὶ πραγμάτων κοινωνεῖν οἱ μὲν ἄρεσκοι δοκοῦσιν εἶναι, οἱ πάντα πρὸς ἡδονὴν ἐπαινοῦντες καὶ οὐθὲν ἀντιτείνοντες, ἀλλ' οἰόμενοι δεῖν ἅλπουσι τοῖς ἐντυγχάνουσιν εἶποι· οἱ δ' ἐξ ἐναντίας τούτοις πρὸς πάντα ἀντιτείνοντες καὶ τοῦ λυπεῖν οἶδ' ὅτι οὖν φραντίζοντες δύσκολοι καὶ δυσέριδες καλοῦνται.

(4) αἱ δὲ κατ' ἀρετὴν πράξεις καλαὶ καὶ τοῦ καλοῦ ἕνεκα. καὶ ὁ ἐλευθέριος οὖν δώσει τοῦ καλοῦ ἕνεκα καὶ ὀρθῶς, καὶ ταῦτα ἡδέως ἢ ἀλύπως· τὸ γὰρ κατ' ὀρετὴν ἡδὺ ἢ ἅλπουσι, ἥκιστα δὲ λυπηρόν· ὁ δὲ διδοὺς οἷς μὴ δεῖ, ἢ μὴ τοῦ καλοῦ ἕνεκα ἀλλὰ διὰ τιν' ἄλλην αἰτίαν, οὐκ ἐλευθέριος ἀλλ' ἄλλος τίς ῥηθήσεται, οὐδ' ὁ λυπηρῶς· μᾶλλον γὰρ ἔλοιτο ἂν τὰ χρήματα τῆς καλῆς πράξεως, τοῦτο δ' οὐκ ἐλευθερίου.

6. Translate any three of the following passages:—

(a) When Xenophon took the fort of the Taochi.

Πάντες γὰρ οὗτοι ἀντεποιοῦντο ἀρετῆς, καὶ διηγωνίζοντο πρὸς ἀλλήλους· καὶ οὕτως ἐρίζοντες αἰροῦσι τὸ χωρίον. Ὡς γὰρ ἀπαξ εἰσέδραμον, οὐδεὶς πέτρος ἀνωθεν ἤνέχθη. Ἐνταῦθα δὲ δεινὸν ἦν θέαμα. Αἱ γὰρ γυναικες, ῥίπτουσαι τὰ παιδιά, εἴτα καὶ ἑαυτὰς ἐπι-

κατερρίπτουν, καὶ οἱ ἄνδρες ὡσαύτως. *Ενθα δὴ καὶ Αἰνείας Στυμφάλιος, λοχῶγῖς, ἰδὼν τινα θέοντα ὡς ρίψοντα ἑαυτὸν, στολὴν ἔχοντα καλὴν, ἐπιλαμβάνεται ὡς κωλύσων. Ὁ δὲ αὐτὸν ἐπισπάται. καὶ ἀμφοτέρωι ὥχοντο κατὰ τῶν πετρῶν φερόμενοι, καὶ ἀπέθανον. Εντεῦθεν ἄνθρωποι μὲν πάνυ ὀλίγοι ἐλήφθησαν, βόες δὲ καὶ ὄνοι πολλοὶ καὶ ποόβατα.

(b) *Demosthenes argues that a man is born for the service of his country.*

ἡγεῖτο γὰρ αὐτῶν ἕκαστος, οὐχὶ τῷ πατρὶ καὶ τῇ μητρὶ πόνον γεγενῆσθαι, ἀλλὰ καὶ τῇ πατρίδι. διαφέρει δὲ τί; ὅτι ὁ μὲν τοῖς γονεῦσι μόνον γεγενῆσθαι νομίζων τὸν τῆς εἰμαρμένης καὶ τὸν αὐτόματον θάνατον περιμένει, ὁ δὲ καὶ τῇ πατρίδι ὑπὲρ τοῦ μὴ ταύτην ἐπιδεῖν δουλεύουσιν ἀποθνήσκειν ἐθελήσει, καὶ φοβερωτέρας ἡγήσεται τὰς ὕβρεις καὶ τὰς ἀτιμίας, ἅς ἐν δουλευούσῃ τῇ πόλει φέρειν ἀνάγκη, τοῦ θανάτου.

(c) *Socrates tells the true story of his life.*

οὐδὲν γὰρ ἄλλο πράττω ἐγὼ περιέρχομαι ἢ πείθων ὑμῶν καὶ νεωτέρους καὶ πρεσβυτέρους μήτε σωματίων ἐπιμελείσθαι μήτε χρημάτων πρότερον μηδὲ οὕτω σφόδρα ὡς τῆς ψυχῆς, ὅπως ὡς ἀρίστη ἔσται, λέγων ὅτι οὐκ ἐκ χρημάτων ἀρετὴ γίγνεται, ἀλλ' ἐξ ἀρετῆς χρήματα καὶ τὰλλα ἀγαθὰ τοῖς ἀνθρώποις ἅπαντα καὶ ἰδίᾳ καὶ δημοσίᾳ.

(d) *Plato teaches that it is impossible to escape from the justice of heaven.*

ταύτης τῆς δίκης οὔτε σὺ μὴ ποτε οὔτε [εἰ] ἄλλος ἀτυχὴς γενόμενος ἐπειξήται περιγενέσθαι θεῶν· οὐ γὰρ ἀμεληθήσει ποτὲ ὑπ' αὐτῆς· οὐχ οὕτω σμικρὸς ὢν δύσει κατὰ τὸ τῆς γῆς βάθος, οὐδ' ὑψηλὸς γενόμενος εἰς τὸν οὐρανὸν ἀναπτήσει, τίσεις δὲ αὐτῶν τὴν προσήκουσαν τιμωρίαν εἶτ' ἐνθάδε μένων εἴτε καὶ ἐν Αἰδου διαπορευθεὶς εἴτε καὶ τούτων εἰς ἀγριώτερον ἔτι διακομισθεὶς τόπον.

GREEK.

SECOND PAPER.

Examiner—DR H STEPHEN, M.A., D.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. It is believed that the Homeric poems were composed near the close of the Bronze Age: give reasons for the belief, stating the various metals and their uses, that are mentioned in the poems. Are 8

there any reasons for thinking the *Iliad* and *Odyssey* to be by different authors? Do you find in the poems any allusions to the art of writing, or the use of the riding horse?

2. Answer (a) and (e) and any two of the other questions.

24

- (a) αὐτίκα δ' ἐξ ὄρεος κατεβήσεται παιπαλόεντος
 κραιπνὰ ποσὶν προβιβάς· τρέμε δ' οὔρεα μακρὰ καὶ ὕλη
 ποσσὶν ὑπ' ἀθανάτοισι Πασειδάωνος ἐόντος.
 τρὶς μὲν ὀρέζατ' ἰών, τὸ δὲ τέτρατον ἵκετο τέκμων,
 Αἰγῆς, ἐνθα δὲ οἱ κλυτὰ δῶματα βένθεσι λίμνης
 χρύσεια μαρμαίροντα τετεύχεται, ἄφθιτα αἰεὶ.
 ἐνθ' ἐλθὼν ὑπ' ὄχεφιν τιτύσκειτο χαλκόποδ' ἵππων
 ὠκυπέτα, χρυσέησιν ἐθειρήσιν κομόωντε

Translate. Parse τετεύχεται, τιτύσκειτο and ὄχεσφι. Longinus quotes these lines as one example of ὕψος; what do you think of them? State the part played by Poseidon in the *Iliad* and *Odyssey*.

- (b) ὡς Τρῶες καὶ Ἀχαιοὶ ἐπ' ἀλλήλοισι θορόντες
 δῆϊον, οὐδ' ἕτεροι μνῶντ' ὀλοοῖο φόβοιο.
 πολλὰ δὲ Κεβριόνην ἀμφ' ὀξέα δοῦρα πεπήγει
 ἰοί τε πτερόεντες ἀπὸ νευρῆφι θορόντες,
 πολλὰ δὲ χερμάδια μελᾶλ' ἀσπίδας ἐστυφέλιξαν
 μαρναμένων ἀμφ' αὐτόν· δ' δ' ἐν στροφάλιγγι κονίης
 κεῖτο μέγας μεγαλωστί, λελασμένος ἵπποσυνάνων.

Translate. Parse πεπήγει, μεγαλωστί, and λελασμένος. Scan the last three lines.

- (c) αἶματί οἱ δεύοντο κόμαι Χαρίτεσσιν ὁμοῖαι
 πλοχμοὶ θ', οἳ χρυσῷ τε καὶ ἀργύρῳ ἐσθήκωντο.
 οἷον δὲ τρέφει ἔρνος ἀνὴρ ἐριθηλὲς ἐλαίης
 χώρῳ ἐν οἰοπόλῳ, ὅθ' ἄλις ἀναβέβρυχεν ὕδωρ,
 καλὸν τηλεθίου· τὸ δέ τε πνοιαί δονέουσιν
 παντοίων ἀνέμων, καὶ τε βρῦναι ἄνθει λευκῷ·
 ἐλθὼν δ' ἐξαπίνης ἄνεμος σὺν λαίλαπι πολλῇ
 βόθρου τ' ἐξέστρεψε καὶ ἐξετάνυσσ' ἐπὶ γαίῃ·

Translate. Derive ἐριθηλής and οἰοπόλῳ. To whom do the lines refer? Remark on the character of Homeric similes.

- (d) παρθενικαὶ δὲ καὶ ἡίθεοι ἀταλὰ φρονέοντες
 πλεκτοῦς ἐν ταλάροισι φέρον μελιηδέα καρπόν.
 τοῖσιν δ' ἐν μέσσοισι πῖις φόρμιγγι λιγείῃ
 ἡμερόεν κιθάριζε, λίνον δ' ὑπὸ καλὸν αἶδεν
 λεπταλὴ φωνῇ· τοὶ δὲ ῥήσσοντες ἀμαρτῇ
 μολπῇ τ' ἑυγμῷ τε ποσὶν σκαίροντες ἔποντο.

Translate. Explain the context of these lines. What was λίνον?

- (e) τὸν δ' ὁ γέρον Πρίαμος πρῶτος ἶδεν ὀρθαλμοῖσιν,
 παμφαίνονθ' ὥς τ' ἀστέρ' ἐπεσσύμενον πεδίοιο,
 ὃς ῥύ τ' ὀπώρας εἰσιν, ἀρίζηλοι δὲ οἱ αὐγαὶ
 φαίνονται πολλοῖσι μετ' ἀστράσι νυκτὸς ἀμολγῷ,

ὄν τε κύν' Ὀαρίωνος ἐπικλήσιν καλέουσιν·
λαμπρότατος μὲν ὃ γ' ἐστί. κακὸν δέ τε σῆμα τέτυκται,
καὶ τε φέρει πολλὸν πυρετὸν δειλοῖσι βροτοῖσιν·
ὥκ τοῦ χαλκὸς ἔλαμτε περὶ στήθεσσι θεόντος.

Translate. Explain the force of the articles here, and the significance of the simile. What is said about Orion in the *Odyssey*?

(f) καὶ τὰ γε χρυσεῖην ἐς λάρνακα θῆκαν ἐλόντες,
πορφυρέους πέπλοισι καλύψαντες μαλακοῖσιν·
αἴψα δ' ἄρ' ἐς κοίλην κύπετον θέσαν, αὐτὰρ ὑπερθεν
πυκνοῖσιν δάεσσι κατεστόρεσαν μέγαλοιον·
ρίμφα δὲ σῆμ' ἔχεαν, περὶ δὲ σκοποὶ ἦατο πάντη,
μὴ πρὶν ἐφορμηθεῖεν ἐκνήμιδες Ἀχαιοί.

Translate. Explain the context. Is there any reason for thinking that B. XXIV is a later addition?

3. Answer (c) and (e) and any two of the other questions.

24

(a) ἴνυ γάρ τοι πρὶν μοῖρα φίλους τ' ἰδέειν καὶ ἰκεσθαι
οἶκον ἐς ὑψόροφον καὶ σὴν ἐς πατρίδα γαῖαν.
πρὶν γ' ὅτ' ἂν Αἰγύπτιοι διυπετέος ποταμοῖο
αὐτὶς ὕδωρ ἔλθῃς, ῥέξῃς θ' ἱερὰς ἑκατόμβας
ἀθανάτοισι θεοῖσι, τοὶ οὐρανὸν εὐρὺν ἔχουσιν.
καὶ τότε τοι δώσουσιν ὁδὸν θεοὶ ἦν σὺ μενοινᾶς.

Translate. Explain the context. Write a note on the etymology of διυπετέος.

(b) βῆ ῥ' ἔμην εἰς ὕλην· τὴν δὲ σχεδὸν ὕδατος εὐρεν
ἐν περιφαινομένῳ· δοιοὺς δ' ἄρ' ὑπήλυθε θάμνους,
ἐξ ὁμόθεν πεφυῶτας· ὁ μὲν φυλὴς, ὁ δ' ἐλαίης.
τοὺς μὲν ἄρ' οὐτ' ἀνέμων διείκει μένος ὕγρον ἀέντων,
οὐνε ποτ' ἠέλιος φαέθων ἀκτῖσιν ἐβαλλεν,
οὐτ' ὄμβρος περᾶσκε διαμπερές' ὥς ἄρα πυκνοὶ
ἀλλήλοισιν ἔφυν ἐπαμοιβαδίσ·

Translate. State the context. Parse διείκει and περᾶσκε.

(c) Κῆρυξ δ' ἐγγύθεν ἦλθεν ἄγων ἐρίηρον αἰδῶν,
τὸν πέρι Μοῦσ' ἐφίλησε, εἶδω δ' ἀγαθὸν τε κακὸν τε.
ὀρθαλμῶν μὲν ἄμερσε, εἶδω δ' ἠδέϊαν αἰοιδὴν.
τῷ δ' ἄρα Ἰοντόνοος θῆκε θρόνον ἀργυρόηλον
μέσσω δαιτυμόνων, πρὸς κίονα μακρὸν ἐρείσας,
καὶ δ' ἐκ πασσαλόφιν κρέμασεν φόρμιγγα λίγεια
αὐτοῦ ὑπὲρ κεφαλῆς καὶ ἐπέφραδε χερσὶν ἐλέσθαι,
κῆρυξ· πᾶρ δ' ἐτίθει κᾶνεον καλὴν τε τράπεζαν,

Translate. What opinion has this passage given rise to with regard to Homer? Who were the *rhapsodes*?

(d) ὥς δ' ὅτ' ἂν ἄγραυλοι πόριες περὶ βοῦς ἀγελαίας,
ἐλθούσας ἐς κόπρον, ἐπὶ βουτάνης κορέσωντο,

πᾶσαι ὅμα σκαίρουσιν ἐναντία· οὐδ' ἔτι σηκοὶ
ἴσχουσ', ἀλλ' ἀδινὸν μυκώμεναι ἀμφιθέουσιν
μητέρος· ὥς ἐμὲ κείνοι, ἐτεὶ ἴδον ὀφθαλμοῖσιν,
δακρύνοντες ἔχυντο·

Translate. Explain the simile and its context.

- (e) ἀλλά με σός τε πόθος σά τε μήδεα, φαίδιμ' Ὀδυσσεῦ,
σὴ τ' ἀγανοφροσύνη μελιηδέα θυμὸν ἀπηύρα.
Ὡς ἔφατ', αὐτὰρ ἐγὼ γ' ἔβελον φρεσὶ μερμηρίζας
μητρὸς ἐμῆς ψυχὴν ἐλθεῖν κατατεθνηυῖης.
τρίς μὲν ἐφωρμήθην, ἐλέειν τέ με θυμὸς ὀνώγει,
τρίς δέ μοι ἐκ χειρῶν σκιῇ εἵκελον ἦ καὶ ὀνείρω
ἔπατ'· ἐμοὶ δ' ἄχος ὄξυ γενέσκειτο κηρόθι μᾶλλον,

Translate. Where is the spirit-world situated according to Homer? Compare later theories. What is said about Achilles in the spirit-world?

4. The poems of Theocritus are commonly called Idylls: explain 14 this word. They are mainly *pastoral* and *epic*: mention what you consider to be the best pastoral, and the best epic Idyll. Give some account of the one 'piscatory' Idyll contained in the collection.

- (a) ΑΙΠ. ἄδιον, ὦ ποιμᾶν, τὸ τεὸν μέλος, ἢ τὸ καταχὲς
τῇν' ὅπῃ τᾶς πέτρας καταλείβεται ὑψόθεν ὕδωρ.
αἶκα τὰ Μῶσαι τὰν οὔδα δῶρον ἄγωνται,
ἄρνα τὸ σακίταν λαψῇ γέρας· αἱ δέ κ' ἀρέσκει
τῆναις ἄρνα λαβεῖν, τὸ δὲ τὰν οὔν ὕστερον ἄξῃ.
ΘΥΡ. λῆς, ποτὶ τὰν Νυμφᾶν, λῆς, αἰπόλε, τεῖδε καθίζας,
ὥς τὸ κάταντες τοῦτο γεώλοφον, ᾧ τε μυρῖκαι,
σιρῖσδεν; τὰς δ' αἴγας ἐγὼν ἐν τῷδε νομεισῶ.

Translate. In what dialect are these poems written? Give the Attic forms of the words in the first three lines.

- (b) Σιμιχίδα, πᾶ δὴ τὸ μεσαμέριον πόδας ἔλκεις,
ἀνίκα δὴ καὶ σαῦρος ἐφ' αἰμασιαῖσι κοθεύδει,
οὐδ' ἐπιτυμβίδιοι κορυδαλλίδες ἡλαίνοντι;
ἢ μετὰ δαῖτα κλητὸς ἐπείγει; ἢ τινος ἀσπὼν
λανὸν ἐπιθρῶσκει; ὥς τεῦ ποσὶ νισσομένοιο
πᾶσα λίθος πταιῖοισα ποτ' ἄρβυλίδεσσιν ἀείδει.

Translate. Compare the Cyclops of Theocritus with the Cyclops of Homer. Mention some modern Idylls, Pastoral and Epic.

5. Translate the following passages (unprepared):—

- (a) Hector foresees the future fate of Andromache.

εὖ γὰρ ἐγὼ τὸδε οἶδα κατὰ φρένα καὶ κατὰ θυμόν·
ἔσσεται ἡμαρ ὅτ' ἂν ποτ' ὀλώλῃ Ἴλιος ἱρὴ
καὶ Πρίαμος καὶ λαὸς ἐνὶ μελίῳ Πριύμοιο.
ἀλλ' οὐ μοι Τρώων τόσσον μέλει ἄλγος ὀπίσσω,

οὐτ' αὐτῆς Ἑκάβης οὔτε Πριάμοιο ἄνακτος
 οὔτε κασιγνήτων, οἳ κεν ποθέες τε, καὶ ἐσθλοὶ
 ἐν κονίῃσι πέσοιεν ὑπ' ἐνδράπτι δυσμενέεσσιν,
 ὅσσον σέυ ὅτε κέν τις Ἀχαιῶν χαλκοχιτώνων
 δακρυόεσσαν ἄγεται, ἐλεύθερον ἡμάρ ἀπούρας·
 καὶ κεν ἐν Ἀργεὶ ἐοῦσα, ἡρὸς ἄλλης ἰστὸν ὑφαίνοις.
 καὶ κεν ὕθωρ φορέοις Μεσσηίδος ἢ Ὑπερείης,
 πόλλ' ἀεκαζομένη, κρατερῇ δ' ἐπικείσεται ἀνάγκη·
 καὶ ποτέ τις εἴπησιν, ἰδὼν κατὰ δάκρυ χέουσας·
 Ἔκτορος ἦδε γυνή δὲ ἀριστεύεσκε μάχεσθαι
 Τρώων ἱπποδάμων, ὅτε Ἴλιον ἀμφεμάχοντο.

(b) Ulysses reveals himself to the suitors.

Αὐτὰρ ὁ γυμνώθη ῥακέων πολύμητι· Ὀδυσσεύς,
 ἄλτο δ' ἐπὶ μέγαν οὐδόν, ἔχων βιὴν ἠδὲ φαρέτρην
 ἰὼν ἐμπλείην, ταχέας δ' ἐκχεύατ' ὁῖστοὺς
 αὐτοῦ πρόσθε ποδῶν, μετὰ δὲ μνηστῆρσιν ἔειπεν
 Οὗτος μὲν δὴ ἄεθλος ἀάατος ἐκτετέλεσται·
 νῦν αὖτε σκοπὸν ἄλλον, ὃν οὐ πω τις βιάλεν ἀνὴρ,
 εἴσομαι, αἶ κε τύχωμι, πόρῃ δέ μοι εὖχος Ἀπόλλων.

GREEK.

THIRD PAPER.

Examiner—DR H STEPHEN, M.A., D.D.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks.

1. Of the Greek plays which you have read, which do you consider 6
 to be the greatest, and why? How does Aristophanes characterise
 each of the tragedians? Quote as many of his lines concerning them
 as you can.

2. (1) Name the different plays on the subject of the Atridae. Is 8
 unity of time preserved in the *Agamemnon*? Compare the story of
 Agamemnon as implied in the play, and as told in the *Odyssey*.

(2) Either (a) or (b).

(a) ἐν νυκτὶ δυσκύναντα δ' ὥρῳρει κακά·
 ναῦς γὰρ πρὸς ἀλλήλαισι Θρηῖκαι πνοαὶ
 ἤρεικον· αἱ δὲ κερουτυπούμεναι βίῃ
 χεიმῶνι. τυφῶ ξὺν ζήλῃ τ' ὄμβροκτύπῳ,
 ἔχοντ' ἄφαντοι ποιμένος κακοῦ στρόβῳ.
 ἐπεὶ δ' ἀνῆλθε λαμπρὸν ἡλίου φάος

ὄρωμεν ἀνθοῦν πέλαγος Αἰγαῖον νεκροῖς
ἀνδρῶν Ἀχαιῶν ναυτικῶν τ' ἐρειπίων.

Translate. Who is the speaker? Derive the compound words. Scan the first three lines.

- (b) K. Ἄ ποῖ ποτ' ἤγαγές με; πρὸς ποῖαν στέγην;
X. Πρὸς τὴν Ἀτρειδῶν· εἰ σὺ μὴ τόδ' ἐννοεῖς,
ἐγὼ λέγω σοι· καὶ τὰδ' οὐκ ἐρεῖς ψῦθ.
K. Μισόθεον μὲν οὖν, πολλὰ συνίστορα
αὐτόφωνα κακὰ καὶ ἀρτάνας,
ἀνδρὸς σφαγεῖον καὶ πέδον ῥαντήριον.
X Ἔοικεν εὖριν ἢ ξένη κυνὸς δίκην
εἶναι, ματεύει δ' ὧν ἀνευρήσει φόνον,
K. Μαρτυρίτοισι γὰρ τοῖσδ' ἐπιπείθομαι·
κλαίόμενα τὰδε βρέβρη, σφαγὰς,
ὅπτάς τε σῦρκας, πρὸς πατρὸς βεβρωμένας.

Translate. Explain the circumstances, and the story of the speaker. Scan the last three lines.

3. (1) Give what you consider to be the etymology of the name *Prometheus*. Sketch briefly the theory of the gods on which the play is founded. Show how Aeschylus's *Prometheus* and Shelley's *Prometheus* differ in purpose. 8

(2) Either (a) or (b).

- (a) φέρ' ὅπως ἄχαρις χάρις, ὦ φίλος, εἰπὶ, ποῦ τίς ἀλκά;
τίς ἐφαμερίων ἄρηξεν; οὐδ' ἐδέρχθης
ἀλιγοδρανίαν ἄκιυν,
ισόνειρον, ἢ τὸ φωτῶν
ἀλαὸν γένος ἐμπεποδισμένον; οὐποτε θιατῶν
τὰν Διὸς, ἁρμονίαν ἀνδρῶν παρεξίασι βουλαί.
ἔμαθον τὰδε σὰς ἡροσιδοῦσ' ὁλοὰς τύχας, Προμηθεῦ.

Translate. Show how these lines bring out the moral of the play.

- (b) τοιοῦδε μόχθου τέρμα μὴ τι προσδόκα,
πρὶν ἂν θεῶν τις διῆδοχος τῶν σῶν πόνων
φανῇ, θελήσῃ τ' εἰς ἀναύγητον μολεῖν
Ἄιδην κνεφαῖα τ' ἄμφι Ἐαρτάρου βύβη.
πρὸς ταῦτα βούλευ· ὥς ὅδ' οὐ πεπλοσμένος
ὁ κόμπος, ἀλλὰ καὶ λίαν εἰρημένος·
ψευδογηγορεῖν γὰρ οὐκ ἐπίσταται στόμα
τὸ Δίον, ἀλλὰ πᾶν ἔπος τελεί.

Translate, and write a note on this passage.

4. (1) Show the connection of the Theban plays of Sophocles. It has been said that the favourite subject of Greek tragedy is a great man struggling against Fate. Comment on this. 8

(2) Either (a) or (b).

- (a) XO. ἀλλ' οὐξ ἐλέγχων αὐτὸν ἔστιν· οἷδε γὰρ
τὸν θεῖον ἦδη μάντιν ὧδ' ἄγουσιν, ὦ
τὰληθές ἐμπέφυκεν αἰθρώπων μόνῳ.

ΟΙ. ὦ πάντα νωμῶν Τειρεσία, διδασκὰ τέ
 ἄρρητὰ τ', οὐράνιά τε καὶ χθοροστιβῆ,
 πόλιν μὲν, εἰ καὶ μὴ βλέπεις, φθρονεῖς δ' ὁμως
 οἷα νόσφ' σύνεστιν· ἧς σε προστάτην
 σιωτῆρά τ', ἄναξ, ροῦνον ἐξευρίσκομεν.

Translate, and write the scansion of the first three lines, marking the caesuras.

(b) οἶμαι γὰρ οὐτ' ἂν Ἰστρον εὐτε Φᾶσιν ἂν
 νύφαι καθαρμῶ τήνδε τὴν στέγην, ὅσα
 κεῖθαι, τὰ δ' αὐτίκ' εἰς τὸ φῶς φανεί κακὰ
 ἐκόντα κοῦκ ἄκοντα. τῶν δὲ πημονῶν
 μάλιστα λυποῦσ' αἰ φανόσ' αἰθαίρετοι

Translate, and quote from a modern poet. In what sense were the crimes of Oedipus αἰθαίρετοι? Scan three lines, marking the caesuras.

5. (1) The tragedy of *Antigone* turns on a conflict of duties; show how. Which in your opinion is right—Kreon or Antigone? Quote or give the substance of the lines describing the supremacy of moral law. 8

(2) Either (a) or (b)

(a) ἀλλὰ γὰρ ἁ μεγαλῶνμος ἦλθε Νίκα
 τᾷ ποχυρμάτῳ ἀντιχαρεῖσα Θήβᾳ.
 ἐς μὲν δὴ πολέμων
 τῶν νῦν θένθε λησμοσύνας,
 θεῶν δὲ ναοὺς χοροῖς
 πανρυχίους πάντας ἐπελθωμεν, ὁ Θήβας δ' ἐλελίχλων
 Βάκχιος ἄρχοι.

Translate, and scan the first two lines.

(b) βωμοὶ γὰρ ἡμῖν ἐσχάται τε παντελεῖς
 πλήρεις ὑπ' οἰωνῶν τε καὶ κυνῶν βοράς
 τοῦ δυσμόρου πεπτῶτος Οἰδίου γόνου
 κατ' οὐδέχονται θυστάδας λιτὰς ἔτι
 θεοὶ παρ' ἡμῶν οὐδὲ ἀνθρώπων φλόγα,
 οὐδ' ὄρνις εὐσήμους ἀπορροιβδεῖ βοάς,
 ἀνδροφθόρου βεβρωῶτες αἵματος λίπας.

Translate, and give the context.

6. (1) State briefly the purpose and teaching of the *Bacchae*. 8

(2) Either (a) or (b).

(a) Βάκχας ποτνιαῖδας εἰσιδὼν, αἶ τῇσδε γῆς
 αἵστροισι λευκὸν κῶλον ἐξηκόντισαν,
 ἦκω φράσαι σοὶ καὶ πόλει χρήζων, ἄναξ,
 ὥς δεινὰ δρῶσι θανμάτων τε κρείσσονα.
 θέλω δ' ἀκοῦσαι, πότερά σοι παρρησίᾳ
 φράσω τὰ κείμενα ἢ λόγον στειλώμεθα.

(b) πρῶτον μὲν οὖν ποιηρὸν ἵζομεν νάπος.
 τὰ τ' ἐκ ποδῶν σιγηλὰ καὶ γλώσσης ἄπο

σώζοντες, ὡς ὀρώμεν οὐχ ὀρώμενοι
 ἦν δ' ἄγκος ἀμφίκρημνον, ὕδασι διάβροχον,
 πεύκαισι συσκιάζον, ἔνθα Μαινάδες
 καθήντ', ἔχουσai χεῖρας ἐν τερπνοῖς πόνοις.

Translate, and explain the context of these passages.

7. (1) What is peculiar about the manner in which Euripides begins his plays? What is meant by *Deus ex Machina*, and where does it occur? 8

(2) Either (a) or (b).

(a) οἱ τόνδε πλεκτὸν στέφανον ἐξ ἀκηράτου
 λειμώνος, ᾧ δέσποινα, κασμήσας φέρω,
 ἔνθ' οὔτε ποιμὴν ὄξιοι φέρβειν βοτὰ
 οὔτ' ἡλθέ πω σίδηρος ἀλλ' ἀκήρατον
 μέλισσα λειμῶν' ἡρινὸν διέρχεται·
 Αἰδῶς δὲ ποταμίαισι κηπεύει δρόσοις.

(b) ἔνθεν τις ἡχὴ χθόνιος ὡς βροντῇ Διὸς
 βαρὺν βρόμον μεθήκε, φρικώδη κλύειν·
 ὀρθὸν δὲ κρατ' ἔστησαν οὐς τ' εἰς οὐρανὸν
 ἵπποι· παρ' ἡμῖν δ' ἦν φόβος νεανικὸς
 πόθεν ποτ' εἴη φθόγγος. ἐς δ' ἀλιρρόθους
 ὅκτας ἀποβλέψαντες ἱρὸν εἶδομεν
 κύμ' οὐρανῷ στηρίζον, ὥστ' ἀφηρέθη
 Σκείρωνος ἄκτας ὄμμα τοῦμόν εἰσορᾶν·

Translate, and describe the context briefly. Aristophanes quotes a line of this play as encouraging sophistical equivocation: give the line and its context.

8. (1) Explain briefly the new forms of thought burlesqued in the *Clouds*. Quote any line descriptive of the new theology. Is the sketch of Socrates historical? 8

(2) Either (a) or (b).

(a) Παρθενοὶ ὀμβροφόροι,
 ἔλθωμεν λιπαρὰν χθόνα Παλλάδος, εὐάνδρον γὰρ
 Κέκροπος ὀφόμεναι πολυήρατον·
 οὐ σέβας ἀριθέτων ἱερῶν, ἵνα
 μυστοδόκος δόμος
 ἐν τελεταῖς ἀγίαις ἀναδείκνυται,
 ἥρι τ' ἐπερχομένῃ Βρομία χάρις,
 εὐκελάδων τε χορῶν ἐρεθίσματα,
 καὶ Μοῦσα βαρύβρομος αὐλῶν.

(b) ΔΙΚ. ἀλλ' οὖν ταῦτ' ἐστὶν ἐκεῖνα
 ἐξ ὧν ἄνδρας Μαραθωνομάχους ἡμῇ παιδευσὶς ἔθρεψεν.
 σὺ δὲ τοὺς νῦν εὐθύς ἐν ἱματίοισι διδάσκεις ἐντετυλίχθαι·
 πρὸς ταῦτ', ᾧ μειράκιον, θαρρῶν ἐμὲ τὸν κρείττω λόγον αἰροῦ·
 κάπιστήσει μισεῖν ἀγορὰν καὶ βαλανείων ἀπέχεσθαι
 καὶ τοῖς αἰσχροῖς αἰσχύνεσθαι καὶ σκώπτῃ τίς σε, φλέγεσθαι·

Translate, and compare briefly the old style of education with the new here described.

9. State briefly the purpose and plan of the *Frogs*. The author 8
accuses Euripides of debasing the poetic art: in what ways?

(a) Ἐνθεν δὴ στοματοργὸς ἐπὼν βασανίστρια λίσπη
γλῶσσ' ἀνελισσομένη, φθονεροὺς κινουῦσα χαλινούς,
ῥήματα δαιομένη καταλεπτολογήσει
πλευμόνων πολὺν πόνον.

(b) ἐπίσχεσ οὗτος, ὦ πολυτίμητ' Αἰσχύλε,
ἀπὸ τῶν χαλαζῶν δ', ὦ πονηρ' Εὐριπίδη,
ἀναγε σεαυτὸν ἐκποδῶν, εἰ σωφρονεῖς,
ἵνα μὴ κεφαλαίῳ τὸν κρόταφόν σου ῥήματι
θενὼν ὑπ' ὀργῆς ἐκκέῃ τὸν Τήλεφον·
σὺ δὲ μὴ πρὸς ὀργήν, 'Αἰσχύλ', ἀλλὰ πρᾶονως
ἔλεγχ', ἐλέγχου· λοιδορεῖσθαι δ' οὐ πρέπει
ἄνδρας ποιητὰς ὥσπερ ἄρτοπώλιδας.

Translate. What poet is described in (a)? Scan any two lines of
(b) and point out how the comic differs from the tragic senarius.

10. Translate (unprepared).

(a) *Oedipus describes the variability of human fortunes* :—

Οἶ, ὦ φίλτατ' Αἰγέως παῖ, μόνοις οὐ γίγνεται
θεοῖσι γῆρας οὐδὲ καθθανεῖν ποτε,
τὰ δ' ἄλλα συγχεῖ πάνθ' ὁ παγκρατὴς χρόνος.
φθίνει μὲν ἰσχύς γῆς, φθίνει δὲ σώματος,
θνήσκει δὲ πίστις, βλαστάνει δ' ἀπιστία,
καὶ πνεῦμα ταῦτ' οὐ ποτ' οὐτ' ἐν ἀνδράσιν
φίλοις βέβηκεν οὔτε πρὸς πόλιν πόλει.
τοῖς μὲν γὰρ ἤδη, τοῖς δ' ἐν ὑστέρω χρόνῳ
τὰ τερπνὰ πικρὰ γίγνεται καθύθις φίλα.

(b) *Theseus shows that good predominates over evil in this world* :—

Η. ἄλλοισι δὴ 'πόνησ' ἀμιλληθεῖς λόγῳ
τοιῷδ'. ἔλεξε γάρ τις ὡς τὰ χεῖρονα
πλείῳ βροτοῖσιν ἐστὶ τῶν ἀμεινόνων.
ἐγὼ οὐ ταῦτοις ἀντίαν γνώμην ἔχω,
πλείῳ τὰ χρηστὰ τῶν κακῶν εἶναι βροτοῖς·
εἰ μὴ γὰρ ἦν τόδ', οὐκ ἂν ἦμεν ἐν φύει.
αἰνῶ δ' ὅς ἡμῖν βίσιον ἐκ πεφυρμένου
καὶ θηριώδους θεῶν διεσταθμῆσατο,
πρῶτον μὲν ἐνθεῖς σύνεσιν, εἴτα δ' ἄγγελον
γλῶσσαν λόγων δοῦς, ὥστε γινώσκειν ὅπα.

GREEK.

FOURTH PAPER.

Examiner—DR. H. STEPHEN, M.A., D.D.

Candidates are required to give their answers in their own words as far as practicable.

Translate any *four* of the following passages into Greek :—

(a) Nicias saw that his soldiers were discouraged by having been, contrary to wont, defeated in their ships; but saw also that, on account of scarcity of provisions, they were eager to face the coming danger as soon as possible. Therefore when all things were ready, he called them together and first encouraged them, and spoke to this effect. Soldiers of Athens and of its allies, the coming contest will be a struggle for safety and country to us no less than to the enemy. If we conquer now with our ships, it will be possible for any one of you to see his native place again. Therefore you must not be down-hearted, nor feel (suffer) what only inexperienced soldiers feel when, having been unsuccessful in their first encounters, they are rendered hopeless by small reverses. But the Athenians here present who have had experience of many wars, and the allies who have served along with them, can remember well the unexpected (vicissitudes) which occur in war. Be ye prepared therefore to renew the struggle in a way worthy of the great multitude which you see gathered here for the coming contest.

(b) It is said that Gyges, the ancestor of the Lydian kings, attained his power in this way: He was a shepherd in the service of the then ruler of Lydia. There was a great storm and an earthquake, and some part of the ground was burst open, and a chasm made its appearance at the place where he was tending his flock. Seeing and wondering he went down, and saw, besides other things, wonderful to tellers of stories, a horse of brass, hollows and having doors. Peeping through them he saw, inside, a dead body larger, as it seemed, than human. The body had nothing else but on one hand a finger ring. Seizing the ring he issued forth. On the customary assembly of the shepherds being held, that they might report to the king the affairs of their flocks, Gyges came and sat among the rest, having the ring on his finger. As he sat he happened to turn the catch (*σπινθήν*) of the ring towards the inside of his hand, and found that, on doing this, he became invisible to those sitting beside him, and that on turning it outwards he became visible again. Perceiving this he got himself to be chosen as one of their messengers to the king.

(c) Herodotus tells us that, when Xerxes was at Abydos, he saw certain ships laden with corn from the Pontus passing through the Hellespont on their way to Aegina and the Peloponnesus. Those who were near him, having heard that the ships belonged to the enemy, were eager to capture them, and, fixing their eyes on the king, watched when he would give the order. But Xerxes asked his attendants where the ships were sailing to. They answered that the ships were conveying corn to his enemies. Then the king answering said, Why then should we stop them? Are we not about to sail to the same place to which these men are sailing, and shall we not require corn and other things? What harm then can they do to us by carrying for us the very things which we shall require in the place to which we are going? Indeed he not only allowed the Greek ships to pass, but sent away un-

harmed the Greek spies who had been arrested while surveying his army. He thought that, by telling what they had seen, they would not benefit, but rather terrify the Greeks.

(d) Certainly, Socrates said, but, still, tell me this much. What do you think to be the greatest good of having possessed such great wealth? One, he answered, regarding which I could not easily convince others. You know, Socrates, that when one is near to thinking himself about to die, fear and anxiety enter into his mind regarding things which never entered into his thought before. For all the so-called myths regarding the things of the invisible world, though laughed at hitherto, as that those who have done wrong here must suffer punishment there—these stories now rise, and torture his mind (with the fear) that they may be true. And either from the weakness of old age, or from being now nearer to the affairs of that other world, he now sees things more clearly than before. He therefore comes to be full of suspicion, and reflects and looks back (to see) if he has wronged anyone in anything; and finding many wrong-doings in his life, he lives in fear, and often starts up from sleep as children do. To him who is thus conscious of wrong-doing, sweet hope, the kindly nurse of age, as Pindar charmingly calls her, is never present.

(c) The Sophists considered rhetoric to be the art of making the worse appear the better reason, and thereby convincing judges that a bad suit was a good one; and they themselves offered to teach the art for large sums of money. A certain Meonius went to a Sophist who promised to teach him if he would pay a certain large sum. The Sophist continued to teach him for a year, and after that he sent to him and demanded payment. Meonius gave no reply. Then, after various attempts, the Sophist summoned him before the judges who asked him whether it was not just that the Sophist should receive his pay after so much trouble. Meonius answered: I promised to pay this money if the Sophist should teach me the art of persuasion. Now I am going to try to convince you that he has taught me nothing. If I succeed in doing that, then by agreement I am not bound to pay. And if I do not succeed in convincing you, then the contract is unfulfilled, and by law I shall owe him nothing. Thus the cleverness of the Sophist was turned against himself.

GREEK.

FIFTH PAPER.

Examiner—REV. DR. G. HOWELLS, M.A., PH.D., B.D., B.LITT.

*Candidates are required to give their answers in their own words
as far as practicable.*

Answer any FIVE questions.

All questions carry equal marks.

1. Discuss from the historical and comparative standpoints the origin and character of the Greek Alphabet.
2. Enumerate and give the more important characteristics of the chief Greek dialects.

3. Classify the Indo-Germanic languages, and note how they differ from other languages.

4. Write an historical review of the progress made during the last hundred years or so, in the scientific study of language, and in the formulation of the principles of modern philology as a science.

5. Enumerate, explicate and present in tabular form the more important sounds in Indo-Germanic speech, with more especial reference to Greek.

6. "Of all the phonetic peculiarities of a language, accent is the most important." Expand and expound this statement.

7. Explain and illustrate in detail the philological laws called after the names of Grimm, Grassmann and Verner respectively.

8. Review the history of the case-suffixes in Indo-Germanic speech, with special reference to Greek.

9. Sketch, with illustrative examples, the history of verb-formation in Greek.

10. To what extent are the principles of Comparative Philology applicable to Sanskrit in its relation to the Indian vernaculars? Discuss this question.

GREEK.

SIXTH PAPER.

Examiner—REV. DR. G. HOWELLS, M.A., PH.D., B.D., B.LITT.

Candidates are required to give their answers in their own words as far as practicable.

N.B.—Answer only FIVE questions.

All questions carry equal marks.

1. Give a survey of the more important memorials and examine the character and range of early Aegean civilization, and discuss the question how far the Greek invaders may have shared in it.

2. "The two great achievements of the aristocratic age are the planting of Greek cities in lands far beyond the limits of the Aegean Sea and the elaboration of political machinery." Expound this statement, noting specially the causes, character and extent of Greek colonization.

3. Review the origin and development of the early Spartan state, and its institutions, and trace the growth of tendencies favourable to Hellenic unity.

4. "The battle of Plataea shares with Salamis the dignity of being decisive battles in the world's history." Fully explain and justify this statement.

5. Write a critical review of the growth, decline and downfall of the Athenian Empire.

6. Give an account of the origin, progress and results of the Peloponnesian War.

7. Relate the episode of the Ten Thousand, and note the significance of the adventure in the history of Greece.

8. Write a descriptive account of the Syracusan Empire and the struggle with Carthage.

9. Describe and account for the rise of Macedon under Philip.
10. Write a critical sketch of the career of Alexander the Great.
11. Estimate in detail the world's debt to Greek civilization.
12. Give a descriptive sketch of social life in ancient Athens.

GREEK.

SEVENTH PAPER.

Examiner—REV. DR. G. HOWELLS, M.A., PH.D., B.D., B.LITT.

Candidates are required to give their answers in their own words as far as practicable.

Answer any FIVE questions.

All questions carry equal marks.

1. Write a critical review of the Homeric question.
2. Indicate the main contents and note the characteristic features of the Histories of Herodotus. Compare him as a historical writer with Thucydides.
3. Trace the historical growth of the Greek drama.
4. Give an account of the life and literary activity of Aeschylus, and discuss his characteristic ways of looking at life.
5. Summarise the contents of any three of the plays of Sophocles and indicate the main features of his dramatic genius.
6. "Euripides is a mixture of realist and mystic." Discuss this statement with illustrative references to his plays.
7. "At the present day Aristophanes seems to share with Homer and Aeschylus and Theocritus the power of appealing directly to the interest and sympathy of almost every reader." Justify this statement.
8. Give an account of the leading events in the life of Plato, and review the chief features of his philosophy. Compare his system of thought with that of Aristotle.
9. Discuss the character and value of Greek oratory, more especially in relation to the speeches of Demosthenes.
10. "There is hardly anything in the pastoral poetry of the world that does not come from Theocritus." Expound this statement, and write a critical review of the poetry of Theocritus.

GREEK.

EIGHTH PAPER.

Examiner—REV. DR. G. HOWELLS, M.A., PH.D., B.D., B.LITT.

Write an Essay on *one* of the following subjects:—

- (1) The origin and development of Religion in Ancient Greece and in Ancient India.

- (2) Greek democracy—its principles, achievements and failures.
- (3) Greek ideals of education in the light of modern conditions.
- (4) The Athens of Pericles and its lessons for the life of our day.
- (5) The Greek and Sanskrit Languages and Literatures. A comparison and a contrast.
- (6) Greek and Sanskrit dramas. A comparative study.

COMPARATIVE PHILOLOGY.

FIRST PAPER.

Examiner—DR. I. J. S. TARAPOREWALA, B.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Candidates are to choose any FIVE questions.

All questions carry equal marks.

1. What is the function of analogy in the building up of a language? In what various ways does this principle work? Illustrate by examples from Sanskrit and other languages. Can you justify the term "false analogy"? 20
2. Discuss fully what is understood by the term "language"; and point out how far Comparative Philology takes cognisance of the various significations of this word. Can animals possess language? 20
3. "The sentence, not the word, is the unit of language." Discuss this theory. 20
4. What are the sounds postulated to have existed in the original Indo-European? Give their full classification and a short history of the various steps by which the present classification of the I.E. consonants was arrived at. 20
5. What is understood by the terms: Dissimilation, Prothesis, Anaptyxis, and Metathesis? Give some examples. What are, in your opinion, the causes of these phenomena? 20
6. What is the difference between sonants and consonants? What are "long sonants"? How do you account for the forms like गन्तुः by the side of forms like गन्तुस् both from the root गम्? 20
7. What is the importance of accent in a language? It is held that in the history of a language the pitch and the stress accent is alternately the stronger. Illustrate this statement. 20
8. What is the importance of the discoveries of Grassmann and of Verner regarding Phonology? 20
9. What is the meaning of the word "Semantics"? Give a clear idea of the province and the methods of this branch of the Science of language. 20
10. How far is a study of Psychology essential for the Science of Language? Treat this question from the point of view of Semantics specially. 20

COMPARATIVE PHILOLOGY.

SECOND PAPER.

*Examiner—DR. MARK COLLINS.**Candidates are required to give their answers in their own words as far as practicable.**Six questions to be attempted.**Maximum Marks: 100.*

1. Write a short note upon the development of comparative and superlative formations in the Indo-European family of languages.

2. Show, with particular reference to Indo-European, how pronominal inflexion may affect that of nouns and adjectives.

3. Compare and comment upon the formation of secondary verbal bases in Indo-European and in any two other important linguistic groups.

4. Explain and illustrate by means of examples the terms *apposition*, *composition* and *suffixation* used by André Lefèvre with regard to the formation of words.

5. Characterize and give illustrative examples of the morphological peculiarities of the main primitive languages of America.

6. Assign to their respective linguistic groups and write a brief note upon each of the following languages:—Oscan, Manx, Brahui, Coptic, Pazend, Maori, Zulu, Frisian, Kawi, Hausa.

7. Write a note upon the non-Indo-European languages existing in Europe at the present day.

8. Explain and illustrate the terms (1) *analogy*, (2) *emphasis*, (3) *laziness*, as applied to the phenomena of change in language.

9. Make clear and illustrate how a synthetic language may pass into an analytic stage. Would you consider such a process indicative of intellectual advance?

10. "An impartial study of the morphological development of language makes it tolerably certain that all inflectional languages must once have been isolating and have passed through the agglutinative stage." Write a brief discussion of this statement.

COMPARATIVE PHILOLOGY.

THIRD PAPER.

*Examiner—AMRITA RAO, ESQ.**Candidates are required to give their answers in their own words as far as practicable.**Six questions to be attempted.**Maximum Marks: 100.*

1. What indications are discernible as to the antecedents of language in the human race?

2. "Just as it was Sanskrit which laid the foundation of comparative philology, so, too, it was the hymns of the Rig Veda, the oldest monument

of Sanskrit literature, which laid the foundation of comparative mythology." Illustrate and comment upon this statement.

3. What light does comparative philology throw upon the social conditions of the primitive Indo-European community? What precautions have to be observed in applying linguistic data to such problems?

4. To what extent has the study of folk-lore contributed to comparative philology?

5. Write a note upon the influences at work in the origin of dialects, and in their development into distinct languages.

6. Comment illustratively upon the influences which race may exert upon language.

7. Illustrate clearly the fact that community of race has little to do with community of language.

8. Briefly consider the question as to whether the primitive descriptive elements in language were of a nominal or verbal character.

9. Discuss the question as to the relation of the personal terminations of verbs to the personal pronouns.

10. Briefly sketch the history of the science of comparative philology from the time of Jakob Grimm to the present day, with special reference to the work of Bopp, Pott, Schleicher, Johannes Schmidt and Fick.

COMPARATIVE PHILOLOGY.

FOURTH PAPER.

Examiner—MAHAMAHOPADHYAYA DR. S. C. VIDYABHUSHAN,
M.A., PH.D.

*Candidates are required to give their answers in their own words
as far as practicable.*

Answer any six of the following questions.

All the questions carry equal marks.

1. (a) Give a complete classification of the sounds represented respectively by the Sanskrit, Prākṛit and Pāli alphabets.

(b) Define the following terms:—

śvara-bhakti, svarita, and saṁvṛta.

2. (a) Examine and illustrate the statement that "a sound etymology has nothing to do with sound."

(b) Comment on the following observation:—

"The linguals are non-original series of sounds derived perhaps from the aboriginal languages of India."

3. (a) Name and illustrate the principal varieties of the Prākṛit dialect. Write what you know about Vārendri Bhāṣā.

(b) Give the Prākṛit equivalents of the following Sanskrit words:—
śayyā, aranya, sphatika and trayodaśa.

4. (a) Give instances of the following in Prākṛit:—

The nine consonants—*k, g, ch, j, t, d, p, y, and v*—when single and non-initial, are generally elided.

(b) The letters *l, v* and *r* are always elided, whether they stand first or last in a conjunct in Prākṛit.

5. (a) Give the equivalents of the following Sanskrit words in the Paisācī dialect :—

rājā, gaganam, iva, kanyā, kāryyam and hrdayam.

(b) Decline “yad” (यद्) in Sanskrit and its corresponding stems in Prākṛit and Pāli in the ablative case, to point out the mutual changes of sound in the three languages.

6. (a) How is Sanskrit र (ṛ) represented in Pāli? Support your answer with examples.

(b) Write notes on the nasal vowels in Pāli.

7. Give instances of the following in Pāli :—

(a) A vowel at the beginning of a word is often dropped; a vowel in the middle of a word is often elided; and a vowel is often added in the beginning of a word.

(b) A consonant is often added at the beginning of a word; a consonant is often dropped in the beginning of a word; and in the middle of a word a consonant is often elided.

8. (a) Give five instances of the following : “Some stems in Sanskrit which are desiderative in form have lost the peculiarity of desiderative meaning and assumed the value of independent roots.”

(b) Put the accent on “indra-śatru” (इन्द्रशत्रु) according as it is a possessive or a dependent compound.

9. (a) Give the meanings of the following Prākṛit words and explain their formation :—

vihunduo, poālo, paṃsu, ṇhāviya, kāūna, vāvaḍo, ṇedum and gadna.

(b) Give the meanings of the following Pāli words and explain their formation :—

pātihera, tekiccha, yebhuyya, kosajja, visūka, pahaṇaka, pahatvāna, and bhonte.

10. (a) Translate the following into Sanskrit and into its corresponding Prākṛit and Pāli :—

I shall stand. He is angry. Why are you agitated?

(b) Identify the dialect of the following verse and translate it into English :—

lahuko vata me kāyo
phuttho ca pītisukhena vipulena,
tūlam iva eritam mālutena
pilavati va me kāyo' ti.

COMPARATIVE PHILOLOGY.

FIFTH PAPER.

Examiner—DR. S. K. BELVALKAR.

Candidates are required to give their answers in their own words as far as practicable.

Pāli and Prākṛit, as well as Sanskrit, may be written either in Roman or in Devanāgarī characters.

Candidates are permitted to attempt SIX questions only.

The questions carry equal marks, but in judging the answers quality rather than quantity will be taken into consideration.

1. "Although the Prākṛits are lineally descended from Classical Sanskrit there are yet certain changes in Prākṛit that are highly reminiscent of the corresponding forms in Vedic Sanskrit. The latter is strikingly the case in Pāli."—Cite some half a dozen instances of forms of nouns as well as verbs in support of this statement.

2. "Pāli, and especially the several varieties of the Prākṛit, exhibit certain words, forms and constructions that have nothing to correspond to them either in the Classical or in the Vedic Sanskrit; these therefore must be assumed to point to an admixture with some foreign or non-Aryan forms of speech."—Justify or criticise this statement, giving illustrations.

3. "As Mahāvīra and the Buddha lived in the same region and at about the same time, it is not very likely that the languages in which they spoke would materially differ from each other: and if we could assume that the languages of the Jain and Pāli canon represent those languages, it follows that there is no vital difference between the two." Discuss this statement, and in the light of your conclusion comment upon the following forms and expressions italicised:—

imāni bhante dhamma-paliyāyāni[.—] Vinayasamukase *Aliyavasāni* Anāgata-bhayāni Munigāthā Moneya-sūte Upatisa-pasino e ca *Lāghulovāde* musāvādāni *adhigicaya* Bhagavatā Budhena bhasite[.] [Bhabra Edict.]

4. Illustrate the workings of analogy in determining the declension and conjugation of nouns and verbs in Pāli or in Jaina Māgadhī.

5. Decline *any two* of the following words in Vedic and Classical Sanskrit, in Pāli, and in Mahārāṣṭrī or Śaurasēnī, adding explanatory or critical morphological notes where called for:—चरम्, चात्वन, आद, चतुर् (fem.), and दधिन.

6. Conjugate, in the tenses and moods indicated, *any two* of the following verbs in Vedic and Classical Sanskrit, in Pāli, and in Mahārāṣṭrī or Śaurasēnī, adding explanatory or critical morphological notes where called for:—इन् (Imperative), जन् (Perfect), इध् (Future), क् (Aorist), and श् (Passive).

7. Identify the following forms, giving (as the case may be) their equivalents in Vedic or Classical Sanskrit, in Pāli and in *any one* variety of the Prākṛit other than that of the form itself:—

इत्थी, अचित्थी, स्त्रीणाम्, सक्का, सेय्या, कीष, विम्हरिण
भरिज्ज, and हुवीशदि.

8. Write a short note on the (i) formation and (ii) use of the Subjunctive in the Veda, indicating at the same time traces of its survival in Classical Sanskrit, in Pāli, and in the Prākṛits.

9. Discuss the changes in the (i) scope and (ii) use of the Ātmanepada from the period of the Saṃhitās and the Brāhmaṇas, through the Classical Sanskrit, on to Pāli and the Prākṛits.

10. Turn the following sentences into regular Classical Sanskrit, commenting upon such forms and constructions in the last four extracts as might enable one to determine the variety of the language employed :—

- (i) सो अग्रं हजे शङ्गे च मर्ते
यस्तु आनट् समिधा हव्यदातिम् ।
य आहुतिं परि वेदा नमोभि-
विश्वेत्स वामा दधते त्वोतः ॥

- (ii) दहरा च हि बुद्धा च सख्यं मनुष्यायना ।
अहं चेव दलित्वा च ये बाला ये च पण्डिता ॥
फलानमिव पक्कानं निचं पपतना भयम् ।
एवं जातानं मच्चानं निचं मरणतो भयम् ॥

- (iii) Jāi honti guṇā to kiṃ kulaṇa, guṇino
kulaṇa na hu kajjaṃ |
Kulam akalāṅkaṃ guṇavajjiyāṇa guruyaṃ
chiya kalāṅkaṃ ||

(iv) सुदु क्लवुच्चदि । अकन्दसमुत्थिता पठमिणी अवज्जग्री वाणिग्री
अचोरो सुवख्यग्रीरो अकलहो गामसमागमो अलुद्धा गणिग्री
त्ति दुकरं एदे सम्भावीअन्ति ।

(v) किं भणह—‘एसे सलणागदवच्छले अत्तणो जीविदनेत्तस्स
कालणे इदिसं अकज्जं य कलिस्सदि’ त्ति ।

अज्जा तेण हि अवधालेह से सुद्धां गदिं । किं दाणिं तुम्हाणं एत्थ
पडिआरविआरेण ।

COMPARATIVE PHILOLOGY.

SIXTH PAPER.

Examiner—B. C. MAJUMDAR, ESQ.

Candidates are required to give their answers in their own words as far as practicable.

SIX questions only to be attempted, of which not more than TWO to be selected from among questions 8, 9 and 10.

Bengali words should in all cases be phonetically transcribed into Roman characters.

1. Discuss the question of elision of medial stops (voiceless and voiced) in Prakrit, and adduce copious examples from Old and Modern Bengali to show that elision was a characteristic feature of the spoken dialects of the pre-vernacular period. How would you explain forms like *rāi*, *gaa* in Literary Prakrit, although the corresponding forms in all the Indo-Aryan vernaculars are *rāi* or *rāt*, and *gaja* or *gai*?

2. Trace the history of the Indo-Aryan (Sanskrit) *y* through the Prakrit and Apabhramsa into Bengali. What are the rules for the *j* pronunciation of *y*, or its elision, in *tatsama* words in Modern Bengali? Write a note on the Bengali letters য, য় with reference to Old and Modern Bengali phonetics.

3. Give instances of vowel aphæresis, syncope and apocope in *tadbhava* words in Bengali.

How are medial *i* and *u* treated in Modern Bengali?

4. Write a short essay on the sound of the Bengali অ. Indicate also its relationship to the sounds of অ and ও.

5. Write notes on the Modern Bengali pronunciations of *eight* of the following *tatsama* words, and comment on their *tadbhava* forms in Old and Modern Bengali:—

কৃষ্ণ, লক্ষ্মী, স্মরণ, শশান, স্বস্তি, জ্ঞান, আবণ, স্পর্শ, বৃদ্ধক, ভদ্র, স্বাদশ, সঙ্কট।

How have the following sound-groups of Indo-Aryan (Sanskrit) been simplified in Modern Bengali: *-yā* (after a consonant), *-vā* (after a consonant), *ks-*, *hy-*?

6. Explain fully the following equations:—

Bengali দুই=Gujarati द्वै; Bengali কোথ=Marathi कुथ; Bengali গম=Hindi गेह; Bengali নাই=Gujarati નથી; Old Bengali কৈল=Hindi किया।

Illustrate by similar examples (which should be not less than *six* in number) that the close relationship between Bengali, Hindi and Marathi can be established only by referring to the Prakrit forms.

7. Comment on the phonology of *eight* of the following words, and trace them to their Indo-Aryan (Sanskrit) originals through the Old Bengali and Magadhi Prakrit:—

হালকা, ফিউজী, সাতাস্তর, দেখ, বাট, বসে, পড়ে (=reads), পড়ে (=falls), বটে, পিনী, কামার, বোন্।

8. Writes notes on the sematology of *ten* of the following words:—

রাগ, পরিবার, কনে, জলপান, সূতরাং, সম্বন্ধী, সন্দেশ, সাহেব, কর্তা, এবং, গুরু, মন্দ, রহস্য, সমুহ, বিলক্ষণ।

9. Explain *ten* of the following Old Bengali words:—

বুহিত, খরা, পিন্ধই, নিয়ড়ে, নজীব, আঁখুরিয়া, নেহ, মিছনি, জুয়ায়, রাতুল, বাউল, রাউত, অপরূপ, রা, বাও।

10. Illustrate the working of the following principles in Bengali Semantics:—(i) narrowing, (ii) widening, (iii) shifting. Give at least *four* examples for each case from among *tadbhava*, *tatsama* or foreign words.

COMPARATIVE PHILOLOGY.

SEVENTH PAPER.

Examiner—SUNITIKUMAR CHATTERJEE, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Select only SIX questions.

1. Discuss fully, with reference to Prakrit as well as Indo-Aryan (Sanskrit), the forms for the Bengali noun in the nominative singular and plural.

State your views as to the origin of the suffix *দিগের*.

2. Write a full historical note on the forms for the first personal pronoun in Bengali, and compare them with those of Oriya, Marathi, Gujarati, and Western Hindi.

3. Compare and contrast the past system of the Bengali verb with that of Prakrit and Classical Sanskrit. Discuss the origin of the past suffix *-জ*, and compare it with the corresponding forms in the other important Prakritic speeches.

4. Distinguish between *-নী* (আনী) and *ঈ* as feminine suffixes in Modern Bengali.

Comment on *four* of the following words with reference to their gender suffixes:—পিসা, জেটাই, জামাই, রাণী, ননদিনী, ভাজ.

5. Write a note on the ordinal forms of the numerals in Bengali.

Write etymological notes on *four* of the following words:—দেড়, পোনে, দুনা, বোল, তেইশ, সাতাশে (as in সাতাশে ছেলে).

6. Discuss the origin of *six* of the following suffixes:—এ (as in শহরে), আ (as in হাতা), ইয়া (as in চলিয়া), ইতে (as in খাইতে), মি (as in ছেলেমি), উআ (as in জলুয়া), পনা (as in গুণপনা), অর (as in চামার).

Comment on the suffixes of *four* of the following:—

খাড়া, রাজারাজড়া, দেউড়ী, ঝিঝাড়া, বিলাতী, ডাকাইত।

7. Write morphological notes on *eight* of the following words:—
করেন, নাচান (infinitive), খাওন, আগেকার, দেখিনু, ঘরহেতে, পথদিয়া তাহারে
(accusative), পূজিবারে, শুক্না, বসন্ত, বহতা।

8. Discuss the character of the language of the following poem by Govindadāsa:—

যাহক লাগি, গুরুগঞ্জে মন রঞ্জন্ত, দুঃজন কিয়ে নাহি কেল।
যাহক লাগি, কুলবতী বরত সমাপল, লাজে তিলাঞ্জলি দেল ॥
সজনি জানন্ত কঠিন কঠিন পরাণ।
ব্রজপুর পরিহরি যাওব সো হরি শুনহৈতে নাহি বাহিরান ॥
যো মবু সরস সমাগম লাগস মণিময় মন্দির ছোড়ি।
কণ্টক কুঞ্জে জাগি নিশি বাসর পন্থ নেহারত মোরি ॥
যাহক লাগি চলহৈতে চরণে পড়ল ফণী মণিমঞ্জীর করি মানি।
গোবিন্দদাস ভণ কৈছন সো দিন বিছুরবা ইহ অন্তমানি ॥

9. Comment syntactically on *eight* of the following passages:—

- (i) হিরণ্যকশিপু মারি পিবন্তি রুধির।
- (ii) শূনিয়া রাজাএ বোলে হইয়া কোতুক।
- (iii) রাজসভা পুজিত তিহ গৌরব অপার।
- (iv) ভবুও প্রভুর নিন্দা সহন না যায়।
- (v) না পুড়িও রাধা অঙ্গ না ভাসাইও জলে।
- (vi) মুছিয়া ফেলিব আমি সঁথির সিন্দুর।
- (vii) শিরে অবিকল জটায় পটল বাঁধিল বেড়িয়া বেড়িয়া।
- (viii) পিছে পিছে চলে যত বাছুর চালাইয়া।
- (ix) সর্বদ্রব্য দিমু আমি ভূমি খাইবার।
- (x) নিশ্চিন্ত না থাকিও প্রমাদ হবে পাছে।

10. Indicate the habits of Bengali with regard to *two* of the following, and give examples to illustrate your answer:—

- (i) the retention or omission of pronouns in a sentence,
- (ii) the position of the subject and the object,
- (iii) the uses of the auxiliary verbs আছে and থাক,
- (iv) the use of কর, to form causatives.

COMPARATIVE PHILOLOGY.

EIGHTH PAPER.

Examiner—PRAPHULLACHANDRA GHOSH, ESQ., M.A.*The figures in the margin indicate full marks.*

Write an Essay on one of the following subjects:—

100

- (i) Linguistic Palaeontology.
- (ii) Comparative Mythology and the Science of Language.
- (iii) Application of the Roman Alphabet to the languages of India.
- (iv) European contribution to the Bengali vocabulary.

HISTORY.

FIRST PAPER.

*Candidates are required to give their answers in their own words as far as practicable.**The questions are of equal numerical value.*

FIRST HALF.

Examiner—K. ZACHARIAH, ESQ., B.A.*Full marks*—50.*N.B.*—Only THREE questions are to be attempted.

1. Write a short essay on the Industrial Revolution in England in the latter half of the eighteenth century, dwelling mainly on its chief features, and its social, economic and political effects. Estimate the importance of the century in the development of English agriculture.

2. "If books are to be measured by the effects which they have produced on the fortunes of mankind *The Wealth of Nations* must rank among the greatest of books" Justify the above remark from the leading principles laid down by Adam Smith in his great work. To what extent did the two great political parties adopt a definite economic policy in the second half of the eighteenth century?

3. Describe the character and position of the Whig aristocracy at the accession of George III. Account for the decay of aristocratic influence on English society and government in the reign of that monarch. Compare the English and the French nobility at the outbreak of the French Revolution.

4. Indicate the extent to which the habits and tastes as well as the literature of the English people, during the prescribed period, were influenced by (a) facility of communications, (b) the connection of England with India, and (c) the French Revolution.

5. Explain the nature of Burke's conservatism, with special reference to (a) his opposition to radical reform; (b) his plea for a natural aristocracy in the state, and (c) his appeal to experience against dogmatism. On what questions did he exert himself in the cause of reform?

SECOND HALF.

Examiner—BEPINBIHARY SEN, ESQ., M.A.

N.B.—Only THREE questions are to be attempted.

Full marks—50.

1. "The influence which is derived from stainless integrity, the influence which is derived from the vilest arts of corruption, the strength of aristocratic connection, the strength of democratical enthusiasm, all these things were for the first time found together." Illustrate the truth of this remark by a reference to the character, the composition and the success of the ministry which was in power at the accession of George III.

2. Attempt an estimate of the character and work of George Washington in the struggle for American independence. Expand—"Washington and his fellows had in one sense to form a nation, in another sense to free a nation."

3. Describe the various measures of conciliation and coercion adopted by the British parliament in dealing with the American colonies from the passing of the Stamp Act to the outbreak of the war of independence, and indicate the effects of these measures on the temper of the colonies.

4. Illustrate the influence of sea power in the contest between Great Britain and France by references to the chief naval engagements in the course of the struggle from 1793 to 1806.

5. Account for Napoleon's hatred of Great Britain, and show in what different ways it expressed itself down to the time of his assumption of the imperial title. What schemes did Napoleon entertain for the development of French interests outside Europe, and why did he fail to carry them into effect?

HISTORY.

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

SIX questions are to be answered, THREE from each half.

FIRST HALF.

Examiner—RAMESCHANDRA MAJUMDAR, ESQ., M.A.

1. Comment upon the following:—

"According to the evidence of facts, and to the distinct avowal of Dowlut Rao Scindiah, and the Rajah of Berar, those chieftains had no cause of complaint against the British Government, nor any reason to apprehend that their just rights and interests were exposed to hazard by the arrangements concluded between the British Government and the Peishwa."

2. Criticise Wellesley's dealings with the Nabob Vizier of Oudh with special reference to the views of Mill, Owen and Sir Arthur Wellesley.
3. Examine, with reference to original documents, the grounds upon which the administration of the Carnatic was taken over by the British.
4. Give a comparative estimate of the political ideals of Cornwallis, Shore and Wellesley.
5. How far were the Anglo-Indian statesmen successful in coping with the administrative difficulties in Bengal in the closing decade of the eighteenth century?

SECOND HALF.

Examiner—S. N. SEN, ESQ., M.A.

6. How far were Mahdajee Sindhia and Nana Farnavis successful in reversing the verdict of Panipat?
7. Contrast Jasovanta Rao Holkar with Mahdajee Sindhia as regards character, aims and achievements.
8. Point out the defects in the internal organisation of the Mahratta Confederacy.
9. Give a general account of the Mahratta Policy towards (a) the Nizam and (b) the Sultan of Mysore, from the Siege of Nurgood to the fall of Seringapatam.
10. Form an estimate of the administrative reforms of Tipu Sultan.

HISTORY.

THIRD PAPER.

Candidates are required to give their answers in their own words as far as practicable.

All questions are of equal value.

FIRST HALF.

Examiner—GAURANGANATH BANERJEE, ESQ., M.A.

Full marks—50.

N.B.—Only THREE questions to be attempted.

1. Trace the development of the Egyptian foreign policy from the beginning of the XIIth to the end of the XXth dynasty.
2. Who were the Hyksos? "The Asiatic Conquest is the central climacteric of Egyptian history" (*Hall*). Expand.
3. "Everything in ancient Egypt bears the impress of religion" (*Leonarmant*). Elucidate.
4. Comment on the following: "Thutmoses III's reign marks an epoch not only in Egypt but in the whole east as we know it in his age." Say what you know about the "feud of the Thutmosids."
5. "The art of a country like the character of its inhabitants belongs to the nature of the land" (*Petrie*). Apply this dictum to Egyptian art.

SECOND HALF.

Examiner—PRAMATHANATH BANERJEE, ESQ., M.A.*Full marks*—50.*N.B.*—Attempt any THREE and not more than three.

6. Write a short essay on the age of Hammurabi and its influence on the later periods of Babylonian history.

7. "The Assyrian 'empire' with its lack of unity in population, with a government that ignored the reciprocal support of its individual parts, disappeared suddenly after the fall of Nineveh, making no attempt to recover and leaving not a trace behind, there is no ground for astonishment" (*Winckler*). Discuss. Analyse the political condition of Western Asia at the time of the destruction of Nineveh.

8. Write a connected account of the "Prophets" and estimate their influence on the history of the Hebrews.

Or,

Institute a comparison between Imperialism in ancient Egypt and Persia.

9. Give some account of the formation of new kingdoms which resulted from the breakup of Alexander's empire.

10. Indicate the historical significance of the part played in the ancient world by—

- (a) the Sumerians,
- (b) the Elamites,
- (c) the Lydians,
- (d) the Cimmerians and the Scythians.

HISTORY.

FOURTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

Not more than SIX of these questions should be attempted, THREE from each half.

Questions carry equal marks.

FIRST HALF.

Examiner—J. N. DASGUPTA, ESQ., B.A. (Oxon).*Any THREE questions.*

1. Comment on the following from the point of view of the constitutional historian :—

(a) "It is no shame among the Germans to be seen among the companions of a chief! When they come to battle it is shameful for the chief to be surpassed in valour; it is shameful for his companions not to equal the valour of their chief."

(b) "The lands are occupied by townships, in allotments, proportional to the number of cultivators, and are afterwards parcelled out

among the individuals of the district in shares according to the rank and conditions of each person."

2. To what extent did William I arrest feudalism as a form of government?

3. Write a critical appreciation of the statesmanship of Henry I as seen in his dealings with (a) the baronage, (b) the church, and (c) the people.

4. Give the main features of the judicial policy of Henry II, and show how by that means he broke materially the power of the barons.

5. Trace the career of Simon de Montfort. What part did he play in the development of parliamentary institutions?

6. What is meant by the Lancastrian experiment? What were the main constitutional developments of the period, and to what extent were they defeated by the break-down of law and order?

SECOND HALF.

Examiner—G. ANDERSON, ESQ., M.A.

Any THREE questions.

7. What were the chief causes of the strength of the Tudors? How far is it true to say that parliamentary institutions were developed during their time?

8. Discuss the methods of Charles I in raising money, and show how they contributed to his downfall.

9. Do you agree with the statement that Oliver Cromwell failed as a constructive statesman?

10. Examine the chief causes of the failure of James II, and in particular his ecclesiastical policy.

11. Show how the power of the Crown was increased during the reign of Queen Victoria.

12. Discuss the position of the cabinet during the reign of King Edward VII. What big departures were made by Mr. Lloyd George in the formation of his present cabinet?

HISTORY.

FIFTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Only SIX questions to be attempted (THREE from each half), including question 12.

FIRST HALF.

Examiner—H. C. RAY CHAUDHURY, ESQ., M.A.

1. "Nevertheless it must be admitted that in the case of intervention as in that of revolution, its essence is illegality and its justification is its success." Explain and comment. Mention the circum-

stances in which a State is justified in intervening, illustrating your answer from historical examples.

2. Describe the international status of any *four* of the following:—Egypt, Cyprus, the Suez Canal, the Dardanelles, Cuba, the Ionian islands, the Zuyder Zee. 16

3. Explain the present tendency of the law relating to the navigation of International rivers by reference to the international status of the Rhine, the Danube, the St. Lawrence, the Niger, and the Amazon. 16

4. Write short notes on any *four* of the following:—the Monroe doctrine, Colonial protectorate, *jus postliminii*, the laws of the Rhodians; *Maro Clausum*; recognition of insurgency; Consular courts; sphere of influence. 16

5. Explain the nature and extent of a State's jurisdiction over foreign vessels, public and private, within its waters, by reference to the English, French and American laws upon the subject. 16

6. State the nature of the immunity from Civil and Criminal jurisdiction enjoyed by a foreign Ambassador in England as regards his person, his *suite*, and his property. 16

SECOND HALF.

Examiner—A. C. DATTA, ESQ., M.A.

7. "In addition to the prohibitions provided by Special Conventions, it is particularly forbidden to declare extinguished, suspended, or unenforceable in law, the right of the subjects of the hostile party to institute legal proceedings." Explain and comment. What are the legal effects of the outbreak of war upon the commercial intercourse between hostile states? 16

8. What do you understand by the right of Angary? Discuss the legality of its exercise by the Allies in the present war. 16

9. During the present war— 16

(a) A cargo of non contraband goods belonging to a German subject domiciled in Spain was seized by the British on a German vessel proceeding to Spain.

(b) A cargo of wheat, being the produce of an estate in Brussels, owned by X a Spanish subject domiciled in Spain, was seized by the British on a German vessel while on its way to Cadiz. The cargo in question was the property of X.

Discuss the legality of the seizures in the cases mentioned above, and explain the law applicable in each case.

10. During the present war— 16

(a) A Spanish vessel carrying absolute and conditional contraband from South America to Cadiz was captured by the Germans. The goods in question were to be landed at Cadiz and transported by land to a private firm in Paris. The goods were condemned.

(b) A Spanish vessel carrying absolute and conditional contraband from South America to Stockholm was captured by the Germans in Mid-Atlantic. The vessel was to touch at Portsmouth on her way to Stockholm for which the goods in question were documented. The goods were condemned.

(c) A Spanish vessel, while on a voyage specially undertaken to transport individual passengers embodied in the armed forces of the Allies, was captured by the Germans. The vessel was condemned.

Discuss the legality of the decisions in the cases mentioned above, clearly stating the law governing each case, and explain the circumstances that would justify the condemnation of neutral vessels for carrying contraband.

11. Write a short statement of the law relating to any two of the following:— 16

(a) The military authority exercisable by a belligerent State over hostile territory in its possession.

(b) Bombardments by naval and land forces in time of war.

(c) The status of enemy merchant ships at the outbreak of hostilities.

(d) The destruction of prizes at sea.

12. Write a short account of any five of the following, clearly explaining the law involved in the decision of each case:— 20

Mighell v. The Sultan of Johore; In re Castioni; the "Exchange" v. McFaddon; the "Huascar"; the "Hoop"; the Peterburg and the Smolensk; the "Twice Gebroeder"; the "Franciska"; the "Peterhoff"; the "Atalanta."

HISTORY.

SPECIAL PERIOD OF INDIAN HISTORY.

FIRST PAPER.

Candidates are required to give their answers in their own words as far as practicable.

All questions carry equal marks.

THREE questions are to be attempted from each half.

FIRST HALF.

Examiner—SURENDRANATH MAJUMDAR, ESQ., M.A.

1. Describe in some detail the life of the Vedic Aryans, dwelling mainly on their towns, villages, houses, occupation, food, and dress.

2. State briefly the contents of (a) the *Atharvaveda Samhitā* and (b) the *Srautasūtras* or the *Dharmasūtras*.

3. (a) What, according to Bṛiṣma, are the characteristics of *gaṇas*, and what is the policy to be adopted by powerful kings towards them?

(b) Explain clearly the safeguards prescribed by Bṛiṣma to protect the people from the oppressions of a king and his officers.

4. State the various sources of revenue in ancient India, in ordinary times and in times of distress.

5. (a) Discuss the age of the *Manusamhitā* and account for its title.

(b) Describe fully the procedure of conducting law suits, as given in the *Manusamhitā*.

SECOND HALF.

Examiner—RAMESCHANDRA MAJUMDAR, Esq., M.A.

6. What general information do you derive from a study of the inscriptions, regarding the political and religious condition of India during the fourth and fifth centuries A.D. ?

7. Explain fully how the inscriptions discovered at Mandasor and Bhitari have advanced our knowledge about the history of ancient India.

8. Give a critical account of the economic condition of India at the time of the rise of Buddhism.

9. To what extent can you accept the traditional account of the first two Buddhist Councils as historical ?

10. Give a short account of the Buddhist literature, with special reference to the Jātaka stories,—the probable age of their composition and their importance as a source of Indian history.

HISTORY.

SPECIAL PERIOD OF INDIAN HISTORY.

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

Only THREE questions to be attempted from each half.

FIRST HALF.

Examiner—DR. D. R. BHANDARKAR, M.A., PH.D.

Full marks—50.

1. What do you know about the Aryan colonisation of Southern India and Ceylon ?

2. Describe the social, economic and religious condition of the Deccan during the Śātavāhana period.

3. Give brief accounts of the following :—

(a) The struggle of the Śātavāhanas with the Kshatrapa dynasties for political supremacy.

(b) Principal events in the reign of Pulakeśi II of the early Chalukya Dynasty.

4. (a) What qualities constituted *dhamma* according to Asoka ?

(b) How were they to be exhibited in practice ?

(c) What means did he adopt for fostering the growth of *dhamma* among his subjects ?

5. (a) What was the extent of Asoka's dominions ? Illustrate your answer by a sketch-map.

(b) Enumerate the feudatory chieftains and independent kings mentioned in Asoka's inscriptions. In what connection does he refer to them ?

SECOND HALF.

*Full marks—50.**Examiner—BABU GAURANGANATH BANERJI, M.A.*

1. Prove by reference to the art, literature and state-organisation of the time that India in the 3rd century B.C. may be justly regarded as a highly civilised state.

2. What do you know about Harshavardhana from Yuan Chwang's account? How far is it corroborated from Indian sources?

3. Write topographical and historical notes on any *six* of the following:—

(a) The Mallai and Oxydrakoi.

(b) Patala.

(c) Pushkalāvati.

(d) Chryse.

(e) Palaesimundu.

(f) Bacarê.

(g) Ka-chu-wen-kilo.

(h) Aspasioi Assakenoi.

4. Institute a brief comparison between the political and religious condition of Northern India in the 4th century A.D. and the first half of the 7th century A.D.

5. (a) Account for the origin of the name "The Periplus of the Erythraean Sea," and discuss the date of its composition, as determined by various commentators.

(b) Indicate the extent of Hellenic influence on India.

HISTORY.

ECONOMIC HISTORY OF ENGLAND AND INDIA.

FIRST PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

FIRST HALF.

*Full marks—50.**Answer any THREE.*

1. Write a short essay on the breakdown of the manorial system in England.

2. Describe the organisation and aims of the craft guilds and the relations that existed between them and (i) the merchant guilds, (ii) the municipal authorities.

3. "In the economic history of England the policy of Burleigh constitutes a great watershed, dividing the old from the new." Explain and illustrate.

4. Discuss immigration as a factor in English economic development.

5. "History seems to be proving that no great institution has been without its use for a time, and its relative justification." Comment on this statement with reference to the economic history of England.

SECOND HALF.

Full marks—50.

Answer any THREE.

1. Explain the causes of English colonization in the 17th century.

2. Suggest comparisons between England's agricultural history during the latter half of the 18th century and her industrial history during the same period.

3. Compare the financial expedients contrived by Pitt during the Revolutionary and Napoleonic wars with those used in the present war.

4. What circumstances led to the enactment of Combination Laws in England, and what led to their repeal?

5. Discuss the position of the various political parties and social classes on the question of Corn Law Repeal.

HISTORY.

ECONOMIC HISTORY OF ENGLAND AND INDIA.

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

Attempt only THREE out of the following FIVE questions.

FIRST HALF.

1. Give a short historical account either of the *Jute* or the *Tea* industry in India during the last three-quarters of a century.

2. Write historical notes on the *Salt* and *Opium* revenue, referring to the principal administrative changes in the methods of their production, distribution and consumption.

3. Trace the development of the *Famine policy* of the Government of India from 1863.

4. Give a critical and historical description of the *land cess* in India.

5. Discuss the relative importance of railways and canals—

(1) in connection with the prevention and relief of famines;

(2) in the development of agriculture and industries.

What part have the Indian waterways played in the past in the development of internal trade, and what are the possibilities for such development in the future?

SECOND HALF.

1. (a) What do you know of Akbar's revenue system ?
(b) Trace the history of the administration of land revenue in Bengal from 1765 to 1793.
2. Describe the progress of factory legislation in India.
3. Outline the history of the Indian Paper Currency system.
4. (a) Account for the chief peculiarities of the foreign trade of India.
(b) What are the main factors affecting India's foreign trade between 1860 and 1900 ?
5. Discuss briefly the effects of the present war on Indian trade and industries.

HISTORY.

COMPARATIVE POLITICS.

FIRST PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal numerical value.

FIRST HALF.

Examiner—J. N. DAS GUPTA, ESQ., B.A. (Oxon).

Full marks—50.

Only THREE questions are to be attempted.

1. "Religion and not laws first guaranteed the right of property." Fully expand the idea, and trace the growth of the principle of succession to property in Roman and Hindu law. Discuss the reasons for the origin and growth of the right of primogeniture in Mediaeval Europe.
2. Distinguish an ancient from a modern State, and discuss the relation of the citizen to the State in an ancient and a modern commonwealth.
3. Show that Roman kingship was but an extension of Roman *Patria Potestas*. Briefly indicate the steps which led to the admission of the unprivileged class among citizens in ancient Rome and in Greek cities like Athens.
4. Sketch the growth of the Athenian democracy, and point out its leading characteristics. What differences do you notice between an ancient and a modern democracy ?
5. Compare the code of Draco with that of Solon. In what respect do you find a resemblance between the position of the Board of Decemvirs and that of Solon ? What new principles of government were introduced in Rome and Athens after the codification of their laws ? Estimate the work of Solon as a legislator.

SECOND HALF.

Examiner—BEPINBIHARI SEN, ESQ., M.A.

Only THREE questions are to be attempted.

1. What, according to Plato and Aristotle, are the conditions of an ideal State? To what extent was the principle of the rule of the best realised in the republic of Rome and in Sparta?

2. Distinguish *Tyranny* from *Monarchy*. Account for the rise of the *Tyrants* in ancient Greece, and state the reasons which led them to develop imperial instincts. Show that the rule of the *Tyrants* was but a stage in the political evolution of many of the Greek states.

3. Distinguish the Athenian from the modern conception of democracy. What were the weak points in the democratic constitution of Athens? Indicate the causes which prevented the Roman political organization from taking a democratic character like that of Athens.

4. Compare the system of checks in the Roman republican institutions with that which is in operation in any one modern State. Do you notice any resemblance between the growth of Roman constitutional history and that of England in the Middle Ages?

5. "Democracy is strongest in legislation while it is comparatively weak in deliberative and executive departments." Examine the justice of the remark, and show how the inherent defects of democracy were avoided in the republican constitution of Rome.

HISTORY.

COMPARATIVE POLITICS.

SECOND PAPER.

Examiner—PRAMATHANATH BANERJEE, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Candidates are permitted to answer SIX and not more than six questions, THREE to be taken from Group A and THREE from Group B.

All questions are of equal value.

GROUP A.

1. 'Rousseau's whole system is "inverted Hobbism."' Discuss.
2. Discuss, in view of actual facts, Montesquieu's theory that the executive power should be independent of the Legislature.
3. "The two historical watchwords of Democracy exclude one another, and where there is political liberty there can be no equality" (*Maine*). Support or refute this statement.
4. (a) "The weak point of the American Constitution lies in the Senate."

(b) "The Senate of U.S.A.—the masterpiece of Constitution makers."

How do you account for this diversity of opinion?

5. What are the true faults of the American democracy, and how does public opinion rule in America?

6. "The Swiss confederation is on the whole the most successful democracy in this world" (*Lowell*). Do you agree with this view?

GROUP B.

THREE, and not more than three, questions to be attempted.

7. Discuss the question whether "public opinion" finds a more adequate expression in the English system of parliamentary government or by the devices of the "Initiative," "Referendum," and "Recall."

8. "The Imperial Chancellor in Germany bears a close resemblance to the Prime Minister in England." Do you agree? Why should not the transfer of power from the Emperor to the Reichstag not produce a democracy in Germany?

9. What is the exact position of the House of Lords among the Second Chambers of the world? Is an upper chamber in a federal form of government an absolute necessity?

10. In what senses is it true to say that the recent history of Austro-Hungary has been a bundle of contradictions?

11. Feudalism is the negation of all that we hold to be the most important in the conception of the state and citizenship." Discuss.

12. Give a short sketch of the Indian constitution. Do you think the various states or provinces of India can be federated under a responsible form of government in the near future?

HISTORY.

SPECIAL PERIOD OF EUROPEAN HISTORY—THE REFORMATION.

FIRST PAPER.

Candidates are required to give their answers in their own words as far as practicable.

All questions are of equal value.

FIRST HALF.

Examiner—D. OWSTON-SMITH, ESQ., M.A.

Full marks—50.

Attempt THREE questions.

1. "The position of the new Pope (Adrian VI in 1522) was beset by difficulties on every side." Explain the nature of the difficulties and the way in which the Pope faced them.

2. Give a sketch of the movements in favour of reform in Italy, distinguishing those which were hostile to the Papacy from those which endeavoured to preserve the unity of the Church.

3. Give an account of the policy, ideals and career of Paul IV. (*Caraffa*)

4. Describe the ecclesiastical state of Sweden about 1525 and explain the attitude and policy of Gustavus Vasa towards the Reformation movement.

5. Describe the objects of the following at the Council of Trent in 1562:—Ferdinand, Philip, the Cardinal of Lorraine, the Spanish bishops. Explain the methods used by the Papal party to gain their ends. Estimate the final result of the Council,

SECOND HALF.

Examiner—K. ZACHARIAH, ESQ., M.A.

Answer Question 6 and ANY TWO of the rest.

1. "Erasmus showed us the promised land" (*Luther*), "The Reformation killed letters" (*Erasmus*).

Discuss these two statements.

2. "In politics as well as in theology, Luther was really conservative." How far is this true?

3. Was there any consistent principle underlying Charles V's treatment of the Lutherans between 1521 and 1546?

4. Give some account of the part played by the towns in the history of the German Reformation. Explain why they did not take a more prominent share.

5. Sketch the career and point out the importance of *either* Philip of Hesse *or* Maurice of Saxony.

6. Comment on—

(a) "Every Christian who feels true compunction has of right plenary remission of punishment and guilt without letters of indulgence." (*Luther's Theses*).

(b) "We, the Electors, Princes, Estates of the Empire... have unanimously agreed... that till the meeting of the Council or a national Assembly... each one should so live... as he hopes and trusts to answer it to God and His Imperial Majesty" (*Recess of the Diet of Spire*, 1526).

(c) "The six cities earnestly pray the Five Cantons to have nothing to do with... pensions, subsidies and gifts" (*The First Peace of Kappel*, 1529).

(d) "We... constitute and depute you, Giovanni Pietro (Caraffa and others)... in the cities, towns, lands and places of all and singular Christian states, north and south of the Alps... to act as Inquisitors General" (*Bull Licet ab initio*, 1542).

HISTORY.

SPECIAL PERIOD OF EUROPEAN HISTORY—THE REFORMATION.

SECOND PAPER.

Examiner—ASWINIKUMAR MUKHERJEE, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

Only THREE questions from each half are to be attempted.

FIRST HALF.

1. "There was a good deal of *heresy*, so called, in England, long before Luther's voice had been heard in Germany."

Give some account of this heresy so as to bring out those influences which predisposed England to the Reformation.

2. "The Reformation in England was divergent in origin, method and aim from all the phases of the movement abroad." Discuss.

3. Compare and contrast Gardiner and Cranmer.

4. Review Anglo-Scottish relations in the Tudor period. How were they affected by the Reformation?

5. "The Elizabethan settlement in Church and State was a compromise satisfactory to no party, and very unsatisfactory indeed to the constitutional lawyer or historian; but, possibly, the best arrangement compatible with circumstances." Explain.

SECOND HALF.

1. Estimate the position and prospects of the Protestants in Europe in the summer of 1572. How far was the Massacre of St. Bartholomew premeditated? What were its main results?

2. Examine the political system of Calvin. What was the Swiss view of religious persecution? Whence comes the idea of Toleration in Europe?

3. Shew how the Reformation in Scotland differed from that in England, and account for that difference. Explain the system of Church government adopted in Scotland.

4. William the Silent is regarded as the founder of the Dutch Republic. To what extent is this the case? Trace his career from the Execution of Egmont and Hoorn to the Death of Don John of Austria.

5. What are the main differences in belief between a Roman Catholic and a Protestant? Explain the position and powers of a Cardinal, of a Bishop, of a Priest. What is a General Council? What is Convocation?

HISTORY.

HISTORY OF ISLAM.

FIRST PAPER.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Examiner—S. KHUDA BUKSH, ESQ., M.A., B.C.L.

The figures in the margin indicate full marks.

1. What light does the Ancient Arabian Poetry throw on the history of the Arabs? 10

2. Discuss Mohamed as a statesman. 20

Or,

Discuss the policy of Omar II. To what extent did it contribute to the fall of the Omayyad dynasty?

3. Write short notes on—(a) Hajjaj, (b) Saffah, (c) the family of the Barmacides. 20

Or,

Describe the position of the Jews and the Christians under the Caliphate.

SECOND HALF.

Examiner—ASWINIKUMAR MUKHERJEE, ESQ., M.A.

Only THREE questions to be attempted.

The questions are of equal numerical value.

Full marks—50.

1. Describe the part played by Egypt in the history of the Crusades.

2. Write a note on the Circassian Mamlûks; their social system, government, the internal condition, and the international position of Egypt under their rule.

3. Describe the life and times of Omar ibn Hafsûn. Account for his failure.

4. Write a note on the Almohades; their origin, rule in Spain and fall.

5. Write a note on the agriculture, commerce and industry of the Spanish Moslems.

HISTORY.

HISTORY OF ISLAM.

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Examiner—L. F. RUSHBROOK WILLIAMS, ESQ., B.A., B.LITT.

Only THREE questions from this half should be answered.

The questions are of equal value.

Full marks—50.

1. Estimate the relative force of (a) Religion, (b) Fear of Insurrection, as constitutional restrictions upon the power of the Monarchy of Delhi during the thirteenth and fourteenth centuries. 16
2. In what respects did Northern India profit by the rule of the Slave Kings ? 16
3. "Throughout the entire fourteenth century, the politics of the North-West Frontier continued of vital importance in the history of the Delhi Sultanate." Criticise. 16
4. Is it true to say that between 1200 and 1526 "India was more a part of Central Asia" than at any other period of her history ? 16
5. Account for the failure of Southern India to evolve a counter-part to the Mughal Empire. 16
6. Give some account of the principal authorities for the study of this period, with critical notes as to their relative value. 18

SECOND HALF.

Examiner—JADUNATH SARKAR, ESQ., M.A.

Only THREE questions from this half should be answered.

All the questions are of equal value.

1. Write a study of Akbar as a social and religious reformer, noticing the extent and duration of his innovations and prohibitions, and the non-Islamic influences that played upon him.
2. Examine the position and influence of the Muslim Church in relation to the State at different periods of the Mughal domination of India.
3. The sources of revenue of the Mughal empire,—the reforms in the system of assessment and collection under different Emperors,—and the general condition of the peasantry as affected by the actual revenue administration.
4. Trace the history of the relations of the Mughal empire with Afghanistan, Persia and Central Asia from 1530 to 1765.

5. It has been held by some that if the liberal and tolerant Dara Shukoh had succeeded Shah Jahan, the decline of the Mughal empire might have been delayed.

Discuss the correctness of this view.

6. Write the history of the Mughal expansion in the Deccan in the 17th century, and criticise its effect on the empire.

HISTORY.

ESSAY.

EIGHTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Indicate on the cover of the answer-book the subject of your Essay by the use of the appropriate letter, A, B, C, D, E, F, G, H, I, J.

Write an essay on only one of the following subjects:—

100

A.

Examiner—BEPINBIHARI SEN, ESQ., M.A.

Liberalism and Nationalism—the twin daughters of the French Revolution.

B.

Examiner—H. C. RAI CHAUDHURY, ESQ., M.A.

Wellesley and British Imperialism.

C.

Examiner—GAURANGANATH BANERJEE, ESQ., M.A.

The legacy of Babylon to the Civilization of the world.

D.

Examiner—L. F. R. WILLIAMS, ESQ., B.A., B.LITT.

The growth of nationalism in English Constitutional History.

E.

Examiner—PRAMATHANATH BANERJEE, ESQ., M.A.

Aeroplanes and submarines in International Law.

F.

Examiner—HON. DR. A. SUHRAWARDY, M.A., PH.D.

Influence of Islam on Hindu thought and culture.

G.

Examiner—DR. D. R. BHANDARKAR, M.A.

Public Administration in Ancient India.

H.

Examiner—S. C. RAY, ESQ., M.A.

The Co-operative movement in India: its past, present and future.

I.

Examiner—G. ANDERSON, ESQ., M.A.

Ideals of world empire: ancient and modern.

J.

Examiner—K. ZACHARIAH, ESQ., B.A.

Calvinism.

PHILOSOPHY.

FIRST PAPER.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Examiner—DR. G. T. ROSS, M.A., D. PHIL.

THREE questions only in this half to be answered.

The questions carry equal marks.

1. What is the significance of the teaching of Heraclitus? Trace its chief effects upon subsequent philosophic theories.
2. Give an appreciation of the contribution of Pythagoras and the early Pythagoreans to philosophic and scientific thought.
3. State and explain the paradoxes of Zeno and point out their relation to the theories which they were meant to refute.
4. Explain the rise of Stoicism and account for the success which it had in the ancient Greek and Roman world as a doctrine of practical ethics.
5. Discuss the relations between Platonic doctrines and Neo-Platonism.

SECOND HALF.

Examiner—J. R. BANERJEE, ESQ., M.A.*Full marks—49.**Candidates are required to attempt only THREE questions, of which the FIFTH must be one and only one.**The figures in the margin indicate full marks.*

1. What were the influences exerted on Socrates' philosophical development? In what does his peculiar philosophical significance lie? Explain and examine the Socratic doctrine that virtue is knowledge. 15

Or,

Mention the schools to which the designation "the partial disciples of Socrates" has been given. What does this designation really 15

imply? State the doctrines of *any two* of these schools and examine them.

2. What, according to Plato, is the relation of God to the Ideas? Fully discuss this question. What is his doctrine of the World-soul? 15

Or,

Fully discuss the Platonic doctrine of Matter, compare it with the Aristotelian doctrine of the same, and examine both the doctrines. 15

3. State concisely what you know of (a) Aristotle's view of the orders or grades of human knowledge, (b) his doctrines of Nature and Soul, and (c) his classification of virtues? 15

Or,

"Aristotle considered himself a member of the school of Plato, and sharply as he contested the doctrine of its founder in many points, more especially in the central point of the doctrine of ideas, yet his whole philosophy is far more deeply and completely defined by its connection with Plato than by its opposition to him." Fully develop the ideas embodied in this sentence. 15

4. State (a) the Platonic theory of the parts of the soul, and (b) Plato's arguments for the immortality of the soul. Criticise the latter. 15

Or,

(a) What exactly does Aristotle hold with regard to Chance and Necessity? (b) "Aristotle's theism, important as it may have been for the history of theology, has meant little or nothing for the religious life of mankind." Examine this. 15

5. Sketch, after Plato in the *Republic*, the ideal State or Constitution, noticing the manner in which he works out the analogy between the soul of man and the constitution of a civil community. Trace, after him in the *Republic*, the origin and describe, as he does in this work, the character of the four inferior men and States. Is the Constitution portrayed by him really the best? Discuss the question. 19

Or,

What does Aristotle say in *Metaphysics* about Unity and Plurality? Examine his views.

PHILOSOPHY.

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiner—KALIDHAN CHATTERJEE, ESQ., M.A.

Answer any THREE questions.

1. Give a critical account of the philosophical system of John Duns Scotus. Can Scotus be described as "the Kant of Scholastic philosophy"? Do you find any analogy between his theory of free-will and that of any modern thinker? 17

2. Discuss the view that "the schoolmen were the defenders of the rights of reason." Indicate briefly the general characteristics of 17

medieval philosophy, and compare them with those of ancient and of modern philosophy.

3. Expound Spinoza's Theory of Knowledge, and consider its consistency with the rest of his thought. Compare and examine briefly the conceptions of Cause in Spinoza and Descartes.

4. Compare Leibnitz's *monads* with (i) Spinoza's *finite modes*, and (ii) Herbart's *reals*. Discuss Leibnitz's theory of the relation of soul and body, and compare it with those of Geulinx and Lotze. 17

5. "Berkeley is simply an incomplete Hume, and Hume simply a Berkeley who has learned the implications of his own philosophy." Elucidate fully this statement. In this connection discuss the place of Berkeley in the history of modern philosophy. 17

SECOND HALF.

Examiner—DR. HIRALAL HALDAR, M.A., PH.D.

Full marks—49.

Answer Question 5 and any TWO of the rest.

1. Explain the relation of the three Critiques of Kant to each other. 15
2. How does Kant show that the principles of substance, causality and reciprocity underlie experience? 15
3. Explain fully Kant's conception of the 'Thing-in-itself.' 15
4. Explain and examine Kant's view of the Teleological Judgment. 15
5. Give an exposition of the main features of Hegel's Philosophy with special reference to the questions at issue between Idealism and Realism, Monism and Pluralism. What objections have been urged against Hegelianism in recent times? Examine the validity of these objections. 19

PHILOSOPHY.

THIRD PAPER.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Examiner—DR. ADITYANATH MUKHERJEE, M.A., PH.D.

Only THREE questions to be attempted.

The questions are of equal value.

Full marks—5.

N.B.—*The candidate is expected to illustrate his answers by giving, where possible, analogues and parallels from European Philosophy.*

1. "At this point the Buddhists remark: As for what you (Chārvākas) laid down as to the difficulty of ascertaining invariable concomitance, your position is unacceptable, inasmuch as invariable concomitance is easily cognizable by means of identity and causality."

Briefly explain the Chārvāka position, and formulate the arguments by which the Bauddha seeks to controvert it.

2. "Destroyed as it is by the malign influence of these and the like objections, the universal is unauthenticated."

Formulate the objections urged by the Bauddha against the doctrine of Universals.

How does the Jaina seek to overthrow the Bauddha doctrine of the Momentariness of everything?

3. Sketch the Nyāya doctrine of Liberation, giving the Naiyāyika's review of doctrines of Liberation not accepted by him.

Or,

How does the Naiyāyika develop his theistic proof? What objections are urged against it by the Sāṅkhya?

4. Write an essay on the Unreality of the Universe from the standpoint of Māyā.

5. Explain any two of the following:—

(a) The four kinds of Perfection expounded in the Yoga system: the Madhumatī, the Madhupratīka, the Viśoka, and the Saṃskāraśeṣatā (Asamprajñāta).

(b) The Vedānta doctrine of the four states and the five sheaths of the Soul.

(c) The five Fallacies as recognized by the Nyāya system.

(d) The philosophical import of the three Guṇas as expounded by the Sāṅkhya system.

SECOND HALF.

Examiner—SUSHILKUMAR MAITRA, ESQ., M.A.

Only THREE questions are to be attempted.

Full marks—50.

N.B.—*The candidate is expected to illustrate his answers by giving, where possible, analogues and parallels from European Philosophy.*

1. Discuss in the light of comparative philosophy Shankara's conception of Brahman (the Absolute) both as Nirguṇa (non-qualified) and as Saguṇa (qualified).

How does Rāmānuja criticise Shankara's position with regard to the doctrine of Māyā (Cosmic Illusion)?

2. Explain the relation of Jīva (the Individual Soul) to Brahman (the Absolute) as conceived (i) by Shankara, (ii) by Ramanuja.

What is the value of karma in a scheme of spiritual discipline (a) according to Shankara, (b) according to Ramanuja?

3. Discuss the main points at issue between the following two doctrines of causality:—

(a) The effect is the heterisation (Vivarta) of the cause.

(b) The effect is the transformation (Parīṇāma) of the cause.

The world is the transformation (Parīṇāma) of Māyā and is the heterisation (Vivarta) of Brahman: explain this.

4. Examine the following:—

(a) Brahmān is the material cause (upādāna) of the world.

(b) Pradhāna (*Natura*) is the material cause of the world.

(c) Paramāṇu (Atom) is the material cause of the world.

Or,

Give the substance of Shankara's criticism of the Buddhistic doctrine of Universal Impermanence.

5. Expound Shankara's dialectic in his refutation of the Vaisheshika categories of Dravya (Substance), Guṇa (Quality), and Samavāya (Intimate Relation).

PHILOSOPHY.

PHILOSOPHY OF RELIGION.

FIRST PAPER.

Candidates are required to give their answers in their own words as far as practicable.

SIX questions to be answered, of which three must be from the first half and three from the second.

The questions are of equal value.

FIRST HALF.

Examiner—REV. G. EWAN, M.A.

1. "The heart has reasons of its own which the Reason cannot comprehend." Consider with relation to the grounds of religious certainty whether this proposition is true.

2. What do you regard as the legitimate meaning of Divine Providence?

3. With reference to Pantheistic arguments to the contrary, consider whether God may in any sense be regarded as transcendent.

4. Examine the compatibility of a doctrine of Divine Foreknowledge of human actions with the freedom and responsibility of the human will."

5. To what extent can an analysis of the nature of causation be regarded as leading to a Theistic view of God?

SECOND HALF.

Examiner—DR. W. S. URQUART, M.A.

(To be answered in a separate book.)

6. Illustrate, by reference to Plato and Aristotle, the *intellectualism* of Greek Theology and Religion.

7. Shew the historical relation between Dualism and Mysticism and give a short account of the mystical tendency in Plotinus.

8. Discuss, with reference to Stoicism, Bradley's statement that, "The world is the best of all possible worlds and everything in it is a necessary evil."

9. Assuming that there is no fundamental antagonism between the ideals of science and religion, show the service that can be rendered (a) by science to religion, (b) by religion to science.

10. Discuss the question whether the philosophical world-view which most commends itself to you can be regarded as a support of optimism or of pessimism.

PHILOSOPHY.

PHILOSOPHY OF RELIGION.

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The questions are all of equal value.

FIRST HALF.

Examiner—DR. B. C. GHOSH, M.A., M.B.

Full marks—50.

Try any THREE.

1. Describe Hegel's conception of the Philosophy of Religion, noting specially its relation to philosophy in general and to positive religion.
2. Sketch briefly Hegel's account of the *forms* of Religious Consciousness.
3. Discuss Royce's definition of God as an Absolute Experience and follow up to the argument for His reality.
4. Examine Royce's conception of the Will and its relation to the Absolute.
5. Discuss, after Royce, the genesis of the Empirical Ego and its relation to the Self-conscious Absolute.

SECOND HALF.

Examiner—SATISCHANDRA CHATTERJEE, Esq., M.A.

Full marks—50.

Try any THREE.

6. Discuss briefly the relative validity of Mechanism and Finality and show how Janet reconciles them.
7. State and examine fully the Lamarckian doctrine of Transformism as applied to the evolution of the organic world.
8. How does Janet characterise Hegel's view as to the first cause of finality?
How far do you consider it to be a valid characterisation of the Hegelian position?
State and estimate the value of the arguments by which Janet claims to prove that the Hegelian view is unsatisfactory.
9. State Spencer's doctrine of the Relativity of Knowledge and discuss what according to him is the basis of agreement between Science and Religion.
10. Show the relation between Mansel and Hamilton in respect of their agnosticism.
Criticise the validity of Mansel's Agnosticism.

PHILOSOPHY.

ETHICS.

FIRST PAPER.

*Candidates are required to give their answers in their own words
as far as practicable.*

The questions are of equal numerical value.

FIRST HALF.

Examiner—KHAGENDRANATH MITRA, ESQ., M.A.

1. Explain and criticise Spencer's theory of Right Conduct. What explanation does Spencer offer of the need for the subordination of personal to social welfare?

2. Explain the origin of Custom. Examine Wundt's law of the three stages in the development of moral conceptions. What is heterogeneity of ends?

Or,

What is a moral norm? Is a conflict of moral norms possible? How is such a conflict resolved? Distinguish Subjective and Objective norms with their corresponding duties and virtues.

3. Why does Kant bring in the conception of law in determining the moral standard? How does he apply the conception to the problem of free-will? Explain his conceptions of autonomy and heteronomy of the will.

SECOND HALF.

Examiner—DR. RAMDAS KHAN, M.A., PH.D.

4. Discuss in detail the relation of Sociology to the other Social Sciences.

5. What do you consider to be the physical basis of Society? How does the contour of the earth's surface determine Social group?

Or,

What do you understand by the differentiation of activities and of groups in Social evolution? How do the social and intellectual conditions influence "association"?

6. Discuss the different causes or forms of Social activity and the different Social aggregates arising in each form.

Or,

Explain briefly the economic, social, political, and psychical modes of Social activity.

PHILOSOPHY.

ETHICS.

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Examiner—J. LANGLEY, ESQ., M.A.

Answer any THREE of the following questions which are of equal value.

1. Compare the views expounded in the ethical writings of Kant and Green concerning the relation between desire and reason.

2. If the virtuous life were accompanied by extreme pain, would it be good for the agent?

3. According to Martineau the objects on which our moral judgment is passed are 'persons exclusively and not things.' Explicate the concept of moral personality so as to bring out the exact significance of Martineau's statement.

4. How far do you consider the distinction of Society into social classes is: (a) an aid in the practical realization of the good, and (b) consistent with the principle of moral equality?

Either,

5. "We have no psychological warrant for identifying 'Disinterested' with either 'Free' or 'Rational' action": explain what you yourself understand by Free and Rational action, and give your own opinion regarding Sidgwick's position here, with your reasons.

Or,

"The relation of Duty and Happiness": are there any grounds, inductive or deductive, on which it can be maintained that Happiness will follow the performance of Duty? Discuss the question.

SECOND HALF.

Examiner—DR. H. STEPHEN, M.A., D.D.

Answer any THREE of the following questions: they are of equal value.

Either,

1. (a) Explain clearly the meaning of, and examine fully, each of the following statements:—

(a) "Sociology is an interpretation of human society in terms of natural causation."

(b) "Sociology is the science of the association of minds."

(c) "The social mind is a concrete thing."

Or,

(b) "Sociology is essentially a Psychical Phenomenon that is conditioned by a physical process": explain fully the meaning of this statement, and show that "the strictly sociological laws" are deducible from this principle.

2. The "primordial social fact" has been variously described as "division of labour," "alliance," "contract," "imitation," and "consciousness of kind": explain precisely the meaning of each, and examine the claim of each to be considered the first principle of sociology.

Either,

3. (a) Right, Morality, Ethicality: explain Hegel's distinction between them, and show how the distinction rises out of his philosophy in general. Explain also the statement that "a man's deeds constitute the very man."

Or,

(b) Hegel's doctrine of the State: explain it fully, and explain the relation between the State and the Individual, showing in what the liberty of the Individual consists, and what Punishment means in Hegel's system.

4. Discuss the question whether the introduction of machinery has tended to improve or to depress the condition of the labouring classes.

5. State and discuss the principal questions rising out of the relation of employers and employees.

PHILOSOPHY.

LOGIC AS METAPHYSICS.

FIRST PAPER.

Candidates are required to give their answers in their own words as far as practicable.

All the questions are regarded as of equal value.

1. Expound after Fichte the grounds of Logic and its first principles in the Science of Knowledge. Explain and criticise Fichte's deduction of Reciprocal Determination, Causality and Substantiality, with their bearings on Realism and Idealism.

Or,

Explain and criticise Fichte's Deduction of Space and Time, and their ideality. Compare and contrast Fichte's Analysis of Time with Kant's, Lotze's and Bergson's.

2. Expound carefully the Logic of Fichte's Idealism, noting the dialectic process as it is successively applied to the idealistic construction.

Or,

Compare and contrast the Ego, the Non-Ego, and the Anstoss of Fichte with the *Atman*, the *Mayā* and the *Vikshepa-shakti* respectively of the Shankarites, and give a comparative estimate of these two systems of Metaphysics.

3. Criticise after Lotze the Herbartian type of Realism. In this connection discuss Herbart's view (1) of Things as simple qualities, (2) of the nature of Relations, and (3) of the psychical mechanism.

4. Explain Lotze's theory of the nature of physical action, and show how it is connected with his view of Law and Cause and of the Unity of Things.

Or,

How would Lotze explain the Mechanism of the Idea? Compare Lotze and Bergson as regards their treatment of Mechanism and Teleology.

5. Explain Kant's view of the schematism of the pure concepts of the Understanding. Apply this schematism to the categories of Relation. What place does Kant give to the Transcendental Faculty of the Imagination in his Critique ?

Or,

Expound and criticise Kant's Deduction of the Categories. Compare this with one other Western, and with one Eastern, attempt to formulate a dialectic of Concepts or Categories.

6. Discuss the question of the necessity or otherwise of a metaphysical basis (1) of psychology, and (2) of Cosmology, in the light of Kant's critiques of the Psychological and the Cosmological Idea. Show in what respects Kant fails to solve the problem.

7. Discuss the question of the subjectivity of Space in connection with the problems of the Spatial Infinite and of the various deductions and systems of space. Criticise the positions of Kant, Hegel and Lotze from the standpoint of recent mathematical analysis.

PHILOSOPHY.

LOGIC AS METAPHYSICS.

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The questions carry equal marks.

Answer any FIVE questions.

1. On what grounds does Hegel identify Logic with Metaphysics ? What objections have been urged against such identification ? Examine the validity of these objections.

2. What is the aim and scope of the Dialectical method as employed by Hegel ? Explain briefly McTaggart's view of the method of Hegel.

3. Hegel has been accused of denying the validity of the Law of Contradiction. Is this accusation just ? Fully discuss the question.

4. Compare Kant's Conception of the Categories with that of Hegel.

5. Trace the development of the Categories from Substance to the Notion. Fully explain what Hegel means by the notion.

6. Explain Hegel's view of the relation between the different forms of Judgment.

7. How does Lotze effect the transition from Pluralism to Monism ? Compare his conception of the Absolute with that of Hegel.

PHILOSOPHY.

LOGIC AS EPISTEMOLOGY.

FIRST PAPER.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Examiner—BABU KRISHNACHANDRA BHATTACHARYYA, M.A.

Answer THREE only.

The questions carry equal marks.

Full marks—50.

1. Need Logic postulate an absolutely valid mode of knowledge? Should it assume that this valid mode is (i) simple apprehension, (ii) necessary thought?
2. Is the content of an abstract idea intrinsically false or is it only a part of the truth? Discuss the question.
3. In 'A is B', is identity in any sense implied by the copula? Bring out some of the senses in which the identity has been conceived.
4. In 'A is not B' and 'A may be B', do *not* and *may* stand for any objective content? Discuss the question.
5. In what different senses is the conclusion of an inference taken as a new proposition? Can inference be regarded as a complex judgment?

SECOND HALF.

Examiner—P. K. CHAKRABARTI, ESQ., M.A.

Only THREE questions are to be answered.

All the questions are of equal value.

Full marks—50.

1. All A is B, All C is A, therefore All C is B.
Examine the meaning of *therefore* in the above argument.
2. Truth is the agreement of ideas and their combinations with their object and its relations.
Connexions of ideas are true when they follow such relations in the matter of ideas as are identical for all consciousness.
Examine the theories of truth suggested in the above extracts.
3. Are all relations subjective? Examine the question with special reference to the views of Kant and Lotze.
4. It is out of the question that Reality should move and have its being in the forms of the Concept, of the Judgment or of the Syllogism which our thought assumes in its subjective efforts towards the knowledge of that reality. (Lotze).
Discuss the relation of logical forms to Reality, with special reference to Lotze.
5. Write a short essay on *necessary truths*, with special reference to Leibnitz, Mill, and Lotze.

PHILOSOPHY.

LOGIC AS EPISTEMOLOGY.

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Examiner—DR. P. K. RAY, D.Sc.

Only THREE questions to be answered.

The questions carry equal marks.

1. Give a critical exposition of the conception of Material Logic and determine its relation to Inductive Logic and Science.

2. What is the relation (1) of Knowledge to Reality and (2) of Reality to Truth? Discuss this question, noticing and criticising the views of the philosophers of different schools.

3. Analyse Causality and discuss the origin, nature and validity of "belief in universal causation," noticing and criticising differences of opinion.

4. Is there any distinction between an Induction and an Hypothesis? Test any four of the following theories and state in the case of each, whether it is an induction or an hypothesis:—

(1) The theory of gravitation.

(2) The theory of conservation of energy.

(3) The theory of the descent of man from lower animals.

(4) The theory of a soul in man.

(5) The theory of parallelism of psychical and physical states.

(6) The mosquito theory of malaria.

(7) The comma bacillus theory of cholera.

5. What is Explanation (1) in Science and (2) in Ethics? Are there any limits to Scientific Explanation? Fully discuss these questions, noticing and criticising differences of opinion.

SECOND HALF.

Examiner—BABU AMBICACHARAN MITRA, M.A.

THREE questions to be answered.

The questions carry equal marks.

1. Is Proof possible without Discovery? Which of them constitutes the proper subject-matter of Logical Science? Explain and illustrate the different forms of Proof as indicated by Lotze.

2. How far is the description of the Inductive Methods as Weapons of Elimination correct? Can Induction be called the inverse process of Deduction?

3. Distinguish between Demonstration, Induction, Probability, and Chance; and show how they are related to Belief. Is Induction based on the theory of Probability? Has Probability a subjective or an objective basis?

4. Determine the character and place of Analogy as a mode of inference. How does Lotze try to show that 'there is no such thing as a proof by analogy'? Examine the view that 'analogy is the soul of induction.'

5. Distinguish between Natural and Artificial Classification, and estimate their relative merits. Show how in the systematic series Classification leads on to Explanation and finally to Speculative Thought or Philosophical Theory.

PHILOSOPHY.

SPECIAL BRANCH OF INDIAN PHILOSOPHY.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Examiner—DR. ADITYANATH MUKHERJEE, M.A., PH.D.

Only THREE questions to be attempted, ONE from Group A and TWO from Group B.

Full marks—50.

Questions are of equal value.

The candidate is expected to illustrate his answers by giving, where possible, analogues and parallels from European Philosophy.

GROUP A.

1. How would you prove that बोध is नित्य ? How would you distinguish ज्ञान from बोध ?

Or,

How does the Vedāntin criticise the Nyāya view of the relation of धर्मधर्मिभाव in respect of the nature of the Ātmā ?

2. How does the Vedāntin seek to obviate the difficulty of the oneness of the Ātmā in respect of दृष्टदुःखादिवशा ? How does he refute the Sāṅkhya explanation of the latter ?

GROUP B.

3. Explain and criticise any two of the following similes:—

(a) पुरुषस्य दर्शनार्थं कैवल्यार्थं तथा प्रधानस्य ।

पङ्क्त्यवदुभयोरपि संयोगस्तत्कृतः सर्गः ॥

(b) वस्तु-विबुद्धि-निमित्तं क्षीरस्य यथा प्रवृत्तिरक्षयः ।

पुरुष-विमोक्ष-निमित्तं यथा प्रवृत्तिः प्रधानस्य ॥

(c) रज्जुस्य दर्शयित्वा निवर्तते नर्तकी यथा नृत्यात् ।

पुरुषस्य तथात्मानं प्रकाशय निवर्तते प्रकृतिः ॥

4. Fully explain the doctrine of Causality as expounded in the following *kārikā* :—

असदकारणादुपादानग्रहणात् सर्वसंभवाभावात् ।

शक्तस्य शक्यकारणात् कारणभावाच्च सत् कार्यम् ॥

5. Explain the doctrine of Proofs (Pramānas) as developed by the Sāṅkhya-kārikā and the Tattva-kaumudī.

Or,

Expound the agnostic position of the Kāpila Sāṅkhya as regards the existence of God (Isvara), (i) from the metaphysical and epistemological, and (ii) from the ethical, point of view.

“SECOND HALF.

Examiner—DR. BRAJENDRANATH SEAL, M.A., PH.D.

All the questions are considered as of equal value.

Full marks—50.

1. Examine after the Sāṅkhya (1) the Shankara-Vedānta and Nyāya-vaisheshika views, (2) the Buddhistic views of the character and origin of the conditions and limitations (बन्ध) to which the individual Self is subject.

Or,

Expound the mutual relations of *Purusha* (the Self) and *Buddhi* (the Understanding) in Experience regarded (1) in its affective aspect (as *Bhōga*), and (2) in its cognitive aspect (as *Pramā*).

2. How does Rāmānuja refute the following positions :—

(a) that “thought” and “being” (अनुभूति and सत्ता) are identical;

(b) that the relations of ‘knower’ to ‘knowing’ and of ‘knower’ to the ‘object known,’ are unreal.

(c) that the real is an undifferentiated unity (निर्विशेषवस्तु).

Or,

Expound Rāmānuja’s theory of Predication. How does Rāmānuja refute the Shankarite view of the import of propositions? Illustrate the points at issue by reference to the following propositions :—(1) this is a cow, (2) Brahman is existence, intelligence and bliss, (3) That art Thou (तच्चमसि).

Or,

Explain and examine carefully Rāmānuja’s critique of *Anumāna* (Inference) as employed in support of the theistic affirmation. How does Rāmānuja refute the pragmatic explanation of *Brahma-vāda*.

(ब्रह्मवाद) as a mere postulate for practical ends, viz. those of spiritual discipline ?

3. Explain and criticise the following statements :—

(a) एकधर्मिण्य आनन्दचैतन्योभयरूपत्वं न भवति दुःखज्ञानकाले सुखानुभवेन सुखज्ञानयोर्भेदात् । न च ज्ञानविशेषः सुखमिति वक्तुं शक्यते । आत्मस्वरूपज्ञानस्य अखण्डत्वात् । अतएव चैतन्यानुभवकाले सुखस्यावरणमपि वक्तुं न शक्यते । अखण्डत्वेन आनन्दावरणे दुःखं ज्ञाना-
मीत्यनुभवानुपपत्तेः ।

(b) ननु च भावरूपमप्यज्ञानं वस्तुयाथात्म्यावभासरूपेण सात्त्विकचैतन्येन विरुध्यते । भवसु सात्त्विकचैतन्यं न वस्तुयाथात्म्यविषयसु अपि तु अज्ञान-
विषयसु । अन्यथा मिथ्यार्थावभासानुपपत्तेः । न हि अज्ञानविषयेण ज्ञानेन अज्ञानं निवर्त्यते इति न विरोधः ।

PHILOSOPHY.

SPECIAL BRANCH OF INDIAN PHILOSOPHY.

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Examiner—DR. BRAJENDRANATH SEAL, M.A., PH.D.

The questions are of equal value.

Answer any THREE.

1. (i) In what sense are विषय and its प्रमाणा said to be one in प्रत्यक्ष ? (ii) Is सुख perceived through a दृष्टि ? Discuss the question.

2. In शुक्तिरजतक्षम, in what sense, if at all, has रजत a सत्ता ? Discuss the Vedantic view as against rival views.

3. अनुमानमन्वयिरूपसु एकमेव न तु क्षेत्रान्वयि ।

Critically present the logical theory implied in the above and contrast it with the Naiyāyika theory of inference.

4. Distinguish the Vedantic view on the question of the अपौरुषेयत्व of वेद from other views, and bring out the significance of the question for modern thought.

5. भूतले घटो न । Is this अभाव-अनुभव to be taken as a प्रत्यक्ष ? Discuss the nature of अभावक्षम .

SECOND HALF.

Examiner—BABU KRISHNACHANDRA BHATTACHARYYA, M.A.

1. Discuss the meaning of Adhyāsa in Shankara's system (1) from the psychological, (2) from the epistemological, and (3) from the ontological point of view. Show clearly how this principle of Adhyāsa is applied (a) to the explanation of the World-Appearance (Prapancha-bibhrama) and of the relation between the Absolute (Brahma), the individual soul (Jiva) and the world (Jagat); and (b) to the determination of the real nature of Liberation (Mukti) and the Way of attaining such Liberation.

Or,

Expond carefully, from the psychological as well as the metaphysical standpoint, Shankara's position with regard to the means of the attainment of Moksha (Liberation), and his criticisms of the principal Purva Mīmāṃsā positions.

In this connection explain clearly the types of Intellectualism and Pragmatism represented by Shankara and the different Mīmāṃsā schools, and show how far they correspond to the typical forms of the Intellectualism and Pragmatism of to-day.

2. How does Shankara's refute the following objections to the thesis that Brahma is the cause of the world :—

- (1) the disparateness of the Intelligent First Cause with Unintelligent Matter;
- (2) the purposelessness of the Creative act or process;
- (3) the inequitableness and the cruelty (Vaiṣhamya-naigghrīṇye) implied in the existing distribution of happiness and unhappiness in Creation.

Discuss Shankara's answer in each of these cases in the light of the treatment of the same problem in the post-Kantian types of Theism in the West.

Or,

Expond Shankara's criticism of *any three* of the following types of thought: (1) Subjective Idealism, (2) Phenomenalism, (3) Nihilism. (4) Relativism, and (5) Evolutionism (Parināma-vāda), and compare carefully Shankara's treatment with that of the Absolute Idealists generally in the post-Kantian European philosophy.

3. Expond *any two* of the following arguments :—

(a) ननु ज्ञानं नाम मानसी क्रिया । न, वेत्तव्यात् । क्रिया हि नाय सा यत्र वस्तुस्वरूपनिरपेक्षैव चोद्यते पुरुषचित्तव्यापाराधीना च । ज्ञानस्तु प्रमाणजन्यम् । प्रमाणस्तु यथाभूतवस्तुविषयम् । अतो ज्ञानं कर्तुमकर्तु-मन्यथा वा कर्तुं न शक्यम् । केवलं वस्तुतन्त्रमेव तत्, न चोदनातन्त्रं नापि पुरुषतन्त्रम् ।

(b) अर्थी चार्थज्ञानोऽभिवृत्तिं लक्ष्यते । यदि अर्थिनः स्वतोऽन्योऽर्थो न स्यात् यथार्थिनो यद्विषयमर्थित्वं च तथार्थो नित्यसिद्ध एवेति तस्य तद्विषयमर्थित्वं न स्यात् । ... सम्बन्धिशब्दो ह्यतो अर्थी चार्थश्चेति । द्वयोश्च सम्बन्धिनोः सम्बन्धः स्यानेकस्यैव । तस्माद्विज्ञौ एतो अर्थार्थिनो, तथा अनर्थानर्थिनावपि ।

(c) शतौ हि प्रतिसंख्याऽप्रतिसंख्यानिरोधौ सन्तानगोचरौ वा ज्ञातां भावगोचरौ वा । न तावत् सन्तानगोचरौ सम्भवतः सर्व्वेष्वपि सन्तानेषु सन्तानिनामविच्छिन्नेन हेतुफलभावेन सन्तानविच्छेदस्यासम्भवात् । नापि भावगोचरौ । न हि भावानां निरन्वयो निरुपाख्यो विनाशः सम्भवति सर्व्वस्वपदव्याप्तुं प्रत्यभिज्ञाबलेनान्वयविच्छेददर्शनात् ।

PHILOSOPHY.

PSYCHOLOGY.

FIRST PAPER.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Examiner—DR. P. K. RAY, D.Sc.

Only THREE questions to be answered.

The questions carry equal marks.

1. Is Psychology a natural Science? Fully discuss the question, noticing and criticising the views of the leading philosophers and defending your own view.

2. Fully state the problem of Sense-Perception in all its aspects, and discuss, noticing and criticising different views as regards the nature of the percipient Subject and the perceived Object.

3. Analyse the Religious Sentiment and trace its growth and development. Fully discuss the nature of the object, if any, which it implies.

4. State the meaning and implications, if any, of "consciousness of freedom." How is freedom reconciled with psychological laws? Fully discuss the question, noticing and criticising the views of the leading philosophers.

5. Discuss the origin, nature and validity of belief in an external world as a reality.

SECOND HALF.

Examiner—BABU HARIDAS BHATTACHARYYA, M.A.

Only THREE questions are to be attempted.

All the questions carry equal marks.

1. Trace the history of Associationism in British Psychology down to Spencer, noting the contributions of each thinker.

Or,

Give a critical estimate of Associationism as a theory of Mental development.

2. Discuss the differentiation of Subject and Object, noticing and criticising the views of Spencer, Wundt and James.

3. Enumerate the conditions of Attention and discuss the theories of the relation between Attention and Interest.

4. Institute a comparison between the presentative and the affective element of a sensation with reference to—

- (i) the characteristics of each;
- (ii) the physiological basis of each; and
- (iii) the relation between the two.

5. (a) Describe a typical case of Animal Instinct and show how it differs from a human action guided by reason.

(b) How has the relation between Instinct and Intelligence been understood by Wundt, Lloyd Morgan and Bergson?

Or,

(a) Discuss how far animals have reason and higher sentiments.

(b) What light does training for shows as in a circus throw upon the mentality of animals?

PHILOSOPHY.

PSYCHOLOGY.

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

All the questions are considered as of equal value.

FIRST HALF.

Examiner—DR. BRAJENDRANATH SEAL, M.A., PH.D.

Full marks - 50.

Only THREE questions are to be answered out of the five in this half paper.

1. Give an account of any two of the following:—

- (a) attention,
- (b) apperception,
- (c) imagination,
- (d) recognition,

viewing each (1) as a reactive, (2) as a relational, and (3) as an affective element, process or state.

2. Explain any three of the following, applying the Weber-Fechner Law wherever possible:—

- (a) the varying scenic effects of changing illumination,
- (b) the æsthetic effect of the golden section,
- (c) the laws of visual adaptation and contrast,
- (d) the so-called hedonistic calculus (estimation of pleasure-values).

3. Analyse any three of the following:—

- (a) your own ideational type,
- (b) your æsthetic enjoyment of a tragedy.

- (c) your temperament,
- (d) any incipient disintegration of your personality in the experience of moral struggle and temptation.

(e) your last-remembered dream,
and discuss the results in the light of general psychological principles.

4. Give in brief outline the theory of mental measurement with typical illustrations.

5. Discuss any *two* of the following :—

- (a) the nature, laws and classes of psychic compounds,
- (b) the relation of quality of sensation to quantity (intensity and duration),
- (c) the relation of feeling-tone to sensation,
- (d) the curve of fatigue,
- (e) the perception of a musical chord, in relation to the question of fusion and synchronousness,
- (f) the specious present,
- (g) relational feelings as presentations,
- (h) the theory of association centres and tracts.

SECOND HALF.

Examiner—DR. N. N. SEN GUPTA, M.A., PH.D.

The figures in the margin indicate full marks.

1. Critically examine the methods used in the investigation of Feelings, with special reference to the value of their results. Mention the appliances whenever possible. 16

Or,

Critically examine *two* of the following :—

- (a) Feeling is a mode of reaction of apperception upon sensations.
- (b) Feeling is the outcome of conflict between “ideas.”
- (c) Feeling is undeveloped sensation.
- (d) Feeling is the psychic aspect of instincts.

2. Critically examine *two* of the following :—

- (a) Emotion is the outcome of fusion between sensation and feelings. 16
- (b) Emotion is a complex of feelings.
- (c) Emotion is the fixed psychosis corresponding to instinct.
- (d) Emotion is the cause of physical expressions accompanying it.

Or,

State and examine the leading views concerning the nature of instinct.

3. Write notes on *three* of the following :—

- (a) Reflex arc.
- (b) Reflex action time.
- (c) The neurone theory.
- (d) Compounding of Reflexes.
- (e) Behaviour of spinal animals.
- (f) Ideo-motor action.

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Or,

Discuss *two* of the following:—

- (a) Reaction experiments.
- (b) Feeling of Innervation.
- (c) Will as the prolongation of feeling.
- (d) Criteria of volitional behaviour.

PHILOSOPHY.

EIGHTH PAPER.

Examiner—DR. BRAJENDRANATH SEAL, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

Write an Essay on *any one* of the following subjects, noticing the more important types of thought and speculation, Eastern as well as Western, on the topic you select:—

- (a) Time and Eternity.
- (b) The Philosophy of Change, with a comparative estimate of Buddhism and Bergsonism.
- (c) Personality and Personal Identity, with a critical examination of the facts of Abnormal Psychology bearing on the subject.
- (d) Instinct, Intuition and Intelligence, their place and value in a philosophical view of Experience and its testimony.
- (e) Romanticism *versus* Absolute Idealism in philosophy.
- (f) The Existential Interpretation of Propositions.
- (g) The Principle of Negation (Abhāva) in Logic and Dialectic.
- (h) The Ethics of Property and its uses: a philosophical discussion in the light of the contrasted principles of Individualism and Socialism.
- (i) The Idea of a suffering God considered in the light of Evolution in History.
- (j) Value-judgments and their kinds, with the elements of a philosophical Theory of Value.

ECONOMICS.

FIRST PAPER.

Six questions only to be answered; three to be taken from each half.

Candidates are required to give their answers in their own words as far as practicable.

The questions carry equal marks.

FIRST HALF.

Examiner—C. J. HAMILTON, ESQ., M.A.

1. Explain carefully how the Equilibrium between Demand and Supply in a market is established. Illustrate your answer by a diagram. State clearly the difference between the theory of market value and the theory of barter.

2. Define Rent. Consider the statement that "rent does not enter into price." "Rent is a species of a large genus." Explain this statement and show how the element of Time has to be taken into account in determining what is and what is not rent.

3. Explain fully the essentials of a good Banking system. What evils are likely to result from an inflation of the Currency?

4. Discuss the various causes that have been suggested to account for Crises. What are the best means for preventing such occurrences?

5. Carefully explain the functions performed by Commercial Bills. Distinguish them from Finance Bills. What will be the probable effect on the trade of a country of a depreciated Currency?

SECOND HALF.

Examiner—PRAPHULLACHANDRA GHOSH, ESQ., M.A., B.Sc.

1. Discuss the relation of economics to the other social sciences. In what way can money be considered as the measure of the motive to economic action?

2. State carefully what is meant by increasing and by decreasing returns. Criticize the statement that in agriculture we have decreasing returns and in manufacture increasing returns.

3. Given the possibility of selling the same commodity at different prices, show how prices would be settled under conditions of monopoly.

4. What is capital, and what constitutes the demand for capital? Give the reasons why writers on taxation object to taxes on capital.

5. Examine the effects on the distribution of the burden of war expenditure according as the expenditure is met by, (1) increased taxation, (2) borrowing. What is the best method of meeting this expenditure, and why?

ECONOMICS.

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The questions carry equal marks.

FIRST HALF.

Examiner—P. ANSTEY, ESQ., M.A.

Full marks—50.

(Answer any THREE questions).

1. Discuss the statement that "rising prices seem to cause prosperity, falling prices adversity."

2. Examine the nature and limits of the influence of credit on prices. How do you reconcile the influence of credit instruments and deposits on prices with the theory that the value of money varies with its quantity?

3. How do you measure the gain accruing to a country from its foreign trade?

Discuss the proposition that "the more countries enter into a trade, the greater is the total gain, and there is a reasonable hope for a greater net gain to all the countries concerned."

4. What is meant by a "free market in gold"? How far, in normal times, does such a free market exist in London, Paris, and New York?

5. "There is a possibility that the imposition of an import duty might disturb the equilibrium of international demand and supply, and might lead to a readjustment by which the duty-levying country will gain."

Examine the above statement, and show how far it can be used as an argument in favour of Protection.

SECOND HALF.

Examiner—J. C. COYAJI, ESQ., B.A.

Full marks—50.

(Answer any THREE questions).

6. Discuss the evil effects resulting from the want of connexion between the market rate and the Bank rate of discount in England. On what lines has it been proposed to bring the market rate and the Bank rate into touch?

7. "The wares of commerce follow the drafts of commerce." Discuss.

Show how the immense international trade done by England is in a great measure due to her unrivalled banking system.

8. How far can labour combinations and industrial combinations of firms be regarded as co-ordinate aspects of a general combination movement?

9. "It is not only in commercial matters, but also in industrial ones that the speculator exercises a dominant influence. He controls production as well as trade."

Comment on the above statement, and discuss the service which legitimate speculation is able to render to the community.

10. Discuss the factors which assist in bringing about the introduction of differential charging in the case of railways. How far, and on what grounds, is such discrimination between different places and districts justifiable?

ECONOMICS.

THIRD PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt the FIRST question and TWO others from each half.

FIRST HALF.

Examiner—P. MUKHERJEE, ESQ., M.A.

1. Discuss in all its aspects the general political principles on which you would justify or oppose the passing of a measure like the Bengal Juvenile Anti-Smoking Bill. 18
2. (a) Explain *either* of the following propositions of Green:— 16
 - (i) Will, not force, is the basis of the state.
 - (ii) Though primarily preventive, punishment is not merely preventive.
- (b) Is the Social Contract Theory entirely valueless as an explanation of the origin of the state?
3. How does Mill prove that Representative Government is ideally the best government? What safeguards does he suggest to avoid its possible evils? What, if any, are the special difficulties of introducing Mill's system of representative government in India? 16
4. Discuss some of the more important theories about Liberty and show how "the unlimited sovereignty of the state is not hostile to individual liberty." 16
5. Discuss some of the results of the application of biological principles to the study of political institutions. 16

SECOND HALF.

Examiner—D. CHATTORAJ, ESQ., M.A.

1. "Imperialism is a depraved choice of national life" (*Hobson*). Discuss this statement with special reference to Imperialism as an ideal in modern Politics. 18
2. 'The general will is sovereign.' Discuss this theory of sovereignty with special reference to the teaching of T. H. Green on the subject. 16
3. Discuss the nature of Public Opinion. How far is it true to say that government rests on opinion? Mention some of the more important organs of public opinion, noting their respective strength. 16
4. In what different forms has the theory of 'Natural Rights' been adopted? Discuss the more important heads of a statement of 'Natural Rights.' 16
5. "The only part of the conduct of any individual for which he is amenable to society, is that which concerns others. In the part which merely concerns himself, his independence is, of right, absolute" (*Mill*). Give a general estimate of Mill's theory of Individuality, with a brief reference to the teaching of Green and Sidgwick on the same subject. 16

ECONOMICS.

FOURTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Examiner—B. MUKHERJEE, ESQ., M.A.

Full marks—50.

Attempt any THREE out of the following five questions, which carry equal marks.

1. Differentiate the constitutions of Canada, Australia and South Africa. Why is the constitution of the last called a "Union"? How is a *Union* distinguished from a *Federation*?

2. Describe the steps which have been taken or suggested for consolidating the British Empire? Discuss the feasibility of the suggested steps.

3. Give the main outlines of the scheme of the constitutional reforms introduced in India in 1909. Discuss its merits and defects. How far has the object aimed at by its authors been attained?

4. State clearly the principles underlying the system of Provincial finance. Examine the objections which are usually urged against the policy of making lump grants from Imperial to Provincial?

5. Under what conditions and limitations are taxation and borrowing by Provincial Governments in India permissible.

SECOND HALF.

Examiner—DR. PRAMATHANATH BANERJEE, M.A., D.Sc.

Full marks—50.

THREE questions only to be attempted.

All questions carry equal marks.

1. Discuss the advantages and disadvantages of a Second Chamber. Give an outline plan for constructing a Second Chamber in England. Should the Indian Legislature consist of two Houses or of only one?

2. Compare and contrast the English Party System with the Group System which exists in some of the countries of Continental Europe.

3. Discuss the status and powers of (a) the Prime Minister, and (b) the Cabinet, in the law and the custom of the British Constitution. Compare the position of the British Premier with that of the Imperial Chancellor of Germany.

4. 'Financially the work of the House of Commons is rather supervision than direction.' Comment on this statement. Discuss the various devices adopted in England for securing a sound administration of national finance.

5. Compare the *droit administratif* of France with what Dicey calls the "English rule of law."

ECONOMICS.

GROUP A.

FIFTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

Six questions only to be answered, THREE to be taken from each half.

The questions carry equal marks.

FIRST HALF.

Examiner—C. J. HAMILTON, ESQ., M.A.

1. Economic facts and theories exert reciprocal influence on one another. Examine and illustrate this statement.

2. (a) How far is John Stuart Mill's theory of value final and complete?

(b) Discuss the correctness of the following remark—"Mill so qualified and amended the doctrines of Ricardo that the latter could scarcely have recognized them."

3. Give an account of the socialistic doctrines of Karl Marx.

4. Make a critical estimate of the writings of W. S. Jevons.

5. What do you know of any three of the following:—

(a) Schmoller, (b) Cairnes, (c) Bernstein, (d) Bastiat, (e) Cliffe Leslie, (f) Wagner?

SECOND HALF.

Examiner—JOGISCHANDRA SINHA, ESQ., M.A.

1. Account for the industrial supremacy of England towards the middle of the 19th century.

2. (a) How far are modern trade unions "the real and legitimate descendants" of mediæval craft guilds?

(b) Describe the chief features in the history of English trade unionism since 1834.

3. (a) Trace the progress of Free Trade in England during the 19th century.

(b) What were the chief causes of the rapid expansion of England's foreign trade during the period 1850-73?

4. (a) What were the circumstances that led to the appointment of the Bullion Committee of 1810?

(b) State the chief conclusions of the Bullion Committee's Report.

5. Write notes on any four of the following:—

(a) The Trade Boards Act of 1909.

(b) The Old Age Pensions Act of 1908.

(c) The National Insurance Act of 1911.

(d) The Workmen's Compensation Acts of 1897 and 1906.

(e) The Poor Law Amendment Act of 1834.

(f) The Factory Act of 1833.

ECONOMICS.

GROUP A.

INTERNATIONAL TRADE

FIRST PAPER.

*Candidates are required to give their answers in their own words
as far as practicable.*

The questions are of equal value.

FIRST HALF.

Examiner—J. C. COYAJEE, Esq., B.A.

Full marks—50.

Answer any THREE questions.

1. "The problem of international value consists in the determination of the conditions governing the division of the double cost of carriage between the countries concerned." Discuss.

How far, and why, are values differently determined in International and Domestic trade?

2. Show some of the advantages to a country of foreign commerce. How far, and why, are the money incomes prevailing in a country the correct index of such gain?

3. "The total stock of money material must be divided between countries in such a way as to keep up that state of trade which would exist under a pure barter system."

Explain and comment on the above.

4. Examine how the form of statement of the Infant industry argument has altered since Mill's days. Does the argument apply to (a) old and developed countries, (b) to agriculture?

5. How far is it true that Exchanges have a tendency to return to par? State why it is necessary, nevertheless, to employ "correctives" of the course of Exchange, and discuss the nature of such "correctives."

SECOND HALF.

Examiner—G. F. SHIRRES, Esq., M.A.

Full marks—50.

Answer Question 6, and two others.

6. Explain carefully the theory and practice of the working of bills of exchange in international trade.

"To those engaged in the Indian export trade the inevitable rise in exchange of about one penny becomes a severe penalty, and more so in view of the large amount of Bills, principally in goods of national importance that are unsold" (*Englishman*, April 12, 1918). Explain this fully.

What do the Exchange Banks mean when they say that it is difficult to arrange for adequate cover at the present time?

7. How far and under what circumstances is a favourable balance of trade an indication of real gain to a country? Illustrate your answer by examining the favourable balance of trade of India during the present war.

8. Consider, briefly and broadly, the various methods of giving a preference to inter-Imperial trade, and the economic difficulties which they respectively present.

9. (a) "To restrict imports is to restrict exports."

(b) "All prosperous nations import more than they export."

(c) "The total imports of the world exceed in value its total exports."

Compare and examine these statements with special reference to India.

10. What economic inferences may be drawn from the statistics of the foreign trade of a country? To what defects are those statistics most frequently liable?

ECONOMICS.

INTERNATIONAL TRADE.

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Examiner—J. P. NIYOGY, Esq., M.A.

Full marks—50.

All questions carry equal marks.

Answer any THREE questions.

1. Examine the arguments advanced in Germany for agricultural protection and show how German agriculture has been affected by protection.

2. Discuss the main causes of the prevalent hold of Protection in America. To what extent does the Tariff of 1913 represent a reaction from extreme protectionist views?

3. Examine the arguments for and against Protection in India and illustrate your answer by examining the conditions of some of India's leading industries.

4. Estimate the advantages of commercial treaties by studying the effects of (a) English treaties with foreign countries in the middle of the 19th century, (b) treaties made by Germany in the nineties.

5. Under what conditions can a policy of Retaliation be successfully carried out? Illustrate your answer from the history of tariff wars.

SECOND HALF.

Examiner—E. A. HORNE, ESQ., M.A.*Full marks*—50.*The questions are of equal value.**THREE questions only to be attempted.*

1. What proposals have been put forward for an Imperial Customs Union of the British Empire? Has the present war made such a union (a) more desirable, (b) more attainable? If so, in what respects? Consider especially the position of India in such a union.

2. Give a brief account of the restrictions maintained by England in 1820 in her foreign and colonial trade and navigation. Indicate how they were successively removed.

3. With what different objects in view have export duties been imposed? Give examples, stating in each case how far, in your opinion, the duty was justified.

4. "The Napoleonic Wars exercised the same influence upon subsequent commercial policy" in France as the Civil War in the United States." Discuss this statement carefully in its bearing on French and American tariff history, respectively.

5. Write short explanatory notes, giving examples, on *each* of the following:—specific duties—conventional tariff—surtaxes d'entrepot—drawbacks.

ECONOMICS.

GROUP A.

MATHEMATICAL ECONOMICS.

FIRST PAPER.

Candidates are required to give their answers in their own words as far as practicable.

Only FIVE questions to be attempted, but not more than THREE from any one half.

The questions carry equal marks.

FIRST HALF.

Examiner—PRAPHULLACHANDRA GHOSH, ESQ., M.A., B.C.

1. What is the rate demand curve? Discuss carefully its form and its algebraic expression. How is consumer's surplus usually represented? Does it necessarily follow the area so shown accurately represents the consumer's surplus?

2. Assume the form of the zero utility curve (u_0), and show how the remaining utility curves are related to it, when the marginal utility of money—(1) is constant, (2) is not constant.

3. Assume the integral demand curve, and show graphically how a curve showing the changes in the elasticity of demand as the quantity increases may be constructed.

4. The standard of living of a group remains constant but the efficiency changes. Show how the number of the group may be expected to alter. State exactly what you mean by efficiency and standard of living, and describe the conditions under which the result you indicate would be realized.

5. An industry is made up of a number of competing firms. Discuss the effect of the formation of a monopoly (or trust) of this industry upon the price of the commodity, (1) when the economy effected by monopolization is the saving of a definite sum per annum, (2) when the economy is a sum proportional of the output.

SECOND HALF.

Examiner—S. JEVONS, ESQ., M.A.

1. Explain, with the aid of a diagram, the nature of the "contract curve" in the theory of exchange; and show how the usual form of demand curve of an individual for a commodity may be indicated upon the diagram which you use to illustrate the contract curve.

2. Explain clearly the theory of quasi-rent in connection with: (1) the cyclical fluctuations of trade, (2) conditions created by war.

3. Give a broad outline of the theory of marginal efficiency as a general principle of the distribution of wealth.

4. Draw up a summary or tabular statement showing in proper order and importance all the causes which affect the demand for and supply of one particular grade of labour, using as an example for illustration the case of *either* (1) a weaver in a cotton mill, *or* (2) a fitter who assembles parts of machines in an engineering workshop. The illustration may be considered as being either in India or in England.

5. Assume an isolated country, like Kashmir, or an island with little or no foreign trade, in which manufactures are partially developed and improved practice in agriculture is being diffused, and in which *zamin-dari* land tenure with temporary settlement prevails. Also assume that the land revenue demand is increased by ten per cent three times at intervals of three years. Trace out the probable results upon rents, agriculture and consumption during this period and the following ten years.

ECONOMICS.

GROUP A.

MATHEMATICAL ECONOMICS.

SECOND PAPER.

Examiner—PRAPHULLACHANDRA GHOSH, Esq., M.A., B.C.

Candidates are required to give their answers in their own words as far as practicable.

The questions carry equal marks.

Only FIVE questions to be attempted, but not more than THREE from any one half.

FIRST HALF.

1. With the help of Marshall's curves for international trade can you show that "a nation is more likely to benefit itself by an export than an import tax"?

2. Show how the formula $MV = P.T.$ may be derived from two methods of expressing the total sales in a period of time.

3. What is an index number? Discuss briefly the construction of Jevon's and of Sauerbeck's Index numbers.

If $P_0P_1\dots$ be the price ratios and $q_0q_1q_2\dots$ be the quantities of commodities sold during the base year, year one, etc., then show that the two formulæ for Index Numbers,

$$\frac{\sum P_1q_1}{\sum P_0q_1}, \text{ and } \frac{\sum P_1}{n},$$

where n is the number of commodities selected, differ by a small quantity if n is large.

4. What is Interest, and how is it determined by the supply and demand for capital?

Find a formula for the present value of an annuity of Re 1 for n years at $r\%$ interest.

5. An island having a gold currency and indebted to foreign nations imposes a 1000 per cent. *ad valorem* export duty on all commodities, including gold and gold coin. If no gold is produced in the island, what will be the effect on prices within the island and on the export trade?

SECOND HALF.

1. How does the quantity theory of money as expounded by Prof. Fisher fit into the ordinary theory of the determination of the value of things by demand and supply?

2. Discuss the incidence of "rates" upon shops and upon houses.

3. What difference would you expect in prices and trade of a tax on imports and a bounty on imports?

"Bounties, an invention of modern times, are the opposite of taxes." [Jevons]. Criticize this statement.

4. Write a short account of the advantages of the use of Mathematics and Statistics in the study of Economics.

5. "There is only one commodity which presents no residual utility, because its total utility is equal to its mass multiplied by its final degree of utility, which is constant. This commodity is money..." [*Pantaleoni*.] Discuss this.

ECONOMICS.

GROUP A.

BANKING.

FIRST PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The questions carry equal marks.

FIRST HALF.

Examiner—S. JEVONS, ESQ., M.A.

Full marks—50.

Answer any THREE questions.

1. What exactly is meant by the movement of amalgamation and absorption of banks in England? What have been its economic basis, and its commercial results? Has any analogous movement occurred in India?

2. Enumerate and describe the different kinds of co-operative credit societies and building loan associations, and compare their place in the economic fabric of a country with that of the commercial banks.

3. Examine the chief difficulties in the construction of Index Numbers of prices and discuss the necessary limitations of their accuracy and utility.

4. Explain what would probably have happened to the Indian Exchange and Currency during the first four years of the war if a free market in exchange had been permitted. Indicate the principal causes of the heavy balance of indebtedness inwards which has lately developed. Was this the cause of the Secretary of State raising the price of Councils to 1s. 5d. and recently to 1s. 6d.?

5. Compare the present state of the Russian currency with that of France during the Revolution, or with that of any South American republic when suffering from an over-issue of paper money.

SECOND HALF.

Examiner—J. C. COYAJI, B.A., LL.D.

Full marks—50.

Answer any THREE questions.

6. On what different lines and with what success have attempts been made to formulate Standards of Deferred Payments which would secure equity in the payment of debts?

7. How does a fall in the purchasing power of money tend to affect, if at all, (1) the prices of the funds, (2) the prices of real estate, (3) the price of gold and silver ornaments, and (4) the rate of interest?

8. Discuss the defects of the National Banking system of the United States of America before the passing of the Federal Reserve Act of 1913. Describe the changes introduced by the Act into the banking and currency system of that country.

9. Compare the work and functions of the Bank of England and the Reichsbank. Show how the differences in the German and English banking systems correspond to the differences in the business habits and in the money market conditions of the two countries.

10. Give a brief account of the financial crisis in London in 1914. What measures were taken to relieve the money market and the banking system of England from the incubus of foreign bills?

ECONOMICS.

GROUP A.

BANKING.

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The questions carry equal marks.

FIRST HALF.

Examiner—BIJAYKUMAR SARKAR, ESQ., M.A.

Full marks—50.

Answer any THREE questions.

1. "The quantity theory is often defended and opposed as though it were a definite set of propositions that must be either true or false. But in fact the formulæ employed in the exposition of that theory are merely devices for enabling us to bring together in an orderly way the principal causes by which the value of money is determined. As to what these principal causes are, competent writers of all schools are, I venture to think, really in substantial agreement."—*Pigou*. Comment on this as fully as you can.

2. National progress does not depend on price movements. Discuss.

3. "It by no means follows, however, that absence of equality of payments causes immediate movements of gold."—*Conant*. If not, why not? Can you illustrate the truth of this statement from the history of the present war? What light does it throw on the Ricardian theory of the distribution of the precious metals?

4. "The volume of currency does not depend, as some critics have maintained, on the caprice of the India Office in the amount of Council Bills that it offers for sale... It is quite independent of the Secretary of State's action."—*Keynes*. Discuss.

5. What are the causes underlying the issue of Rs. 1/2 $\frac{1}{2}$ notes? What do you think of the apprehension that they will lead to an inflation of the currency?

SECOND HALF.

Examiner—E. A. HORNE, ESQ., M.A.*The questions are of equal value.**THREE questions only to be attempted.*

1. "A rise in the value of money tends to lower the prices of all securities." Explain, and illustrate this proposition. How does a fall in the prices of securities react on banking business?

2. Show clearly the manner in which an influx of new gold raises prices in the first instance, and trace the subsequent stages by which a trade boom is brought about. What are the factors which bring about the inevitable reaction?

3. What is the best definition of Currency? Does it include paper money? If so, what kinds of paper money? To what extent do Stock Exchange securities form part of the currency of international trade? Give instances.

4. Give a brief history of the Gold Standard Reserve, noting any changes which have been made in the policy pursued with regard to it. On what occasions has it been made use of?

5. What do you know of Ricardo's proposals for "an economical and secure currency"? What similar proposals (a) on a bimetallic, (b) on a gold basis, have at different times been put forward, with a view to giving greater stability to the standard of value?

ECONOMICS.

GROUP B.

FIFTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

Only SIX questions may be attempted, of which three must be taken from each half.

The questions are of equal numerical value.

FIRST HALF.

Examiner—ARTHUR BROWN, ESQ., M.A., LL.D.*Full marks—50.*

1. Discuss the extent to which political philosophers may profitably make use of biological theories to account for the history and form of political institutions.

2. "It is a truism that dogma never takes definite shape, save as a result of its denial by some thinker or leader." (*Figgis*). Comment from the point of view of the history of political thought.

3. Discuss how far Hobbes uttered truths applicable at the present day and how far his views were purely ephemeral.

4. "But the importance of this theory (i.e. of the Law of Nature) to mankind has been much greater than its philosophical difficulties would lead us to expect. Indeed it is not too easy to say what turn the theory of thought and therefore of the human race would have taken if the belief in a law natural had not become universal in the ancient world." (*Main*—"Ancient Law.") Comment.

5. Discuss the origin of the Social Contract theory of the state.

SECOND HALF.

Examiner—P. MUKHERJEE, ESQ., M.A.

Full marks—50.

1. "Aristotle's Politics is at once the portraiture of an Ideal State and a Statesman's Manual." Discuss this statement.

2. "The dividing line between the ancient and modern political theory must be sought, if anywhere, in the period between Aristotle and Cicero." Substantiate or criticise this statement.

3. Explain and critically examine the following propositions:—

(a) "A punishment is an evil inflicted by public authority on him that hath done or omitted that which is judged by the same authority to be a transgression of the law, to the end that the will of men may thereby be better disposed to obedience." (*Hobbes*).

(b) "The beginning of politic society depends upon the consent of the individuals to join into and make one society, who, when they are thus incorporated, might set up what form of government they thought fit." (*Locke*).

4. "The *Prince* is the most direct contribution ever made to the secularization of politics." (*Morley*). Establish this proposition, illustrating your answer, where possible, with typical quotations.

Or,

"The doctrines of Rousseau are fatal to true individual liberty." (*Tozer*). Substantiate or criticise this proposition.

5. Write a short essay on *one* of the following:—

(a) Individualism in politics;

(b) Utilitarianism in politics;

(c) The influence of physical environment on social and political institutions.

ECONOMICS.

GROUP B.

COMPARATIVE STUDY OF POLITICAL INSTITUTIONS.

FIRST PAPER.

Examiner—PRAMATHANATH BANERJEE, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Candidates are required to answer SIX questions in all, and not more than six. Three to be attempted from Group A and three from Group B.

All questions are of equal value.

GROUP A.

1. "Plato's state, though ideal, is not designed as a Utopia; it is not a fancy state but a pattern state." Examine this statement.
2. "Inductive political science must now admit that the democracy of Athens does not deserve the position which the delusion of centuries has been good enough to assign to it in the history of mankind." Support or refute this remark.
3. "Greek and Roman colonies had nothing in common." Discuss.
4. How far is it true to say that the Constitutional History of republican Rome turns on the restriction of the imperium?
5. What are the various agencies by which Law is brought into harmony with Society?
6. What do you know of the Patriarchal theory of Maine? Do you agree with Sidgwick that "Maine's patriarchal theory, in its final form, has undergone a material change"?

GROUP B.

7. "Polybius regards the constitution of Rome as a combination of the three forms of government—Monarchy, Aristocracy, Democracy. Examine his dictum.
 8. Expand the idea that the Papacy is the ghost of the Roman Empire sitting crowned on its grave.
 9. In what sense is it true to say that Feudalism is the negation of all that we hold to be the most important in the Conception of the State and Citizenship?
 10. Compare Italian city communities with those of ancient Greece.
 11. "The Roman Empire is commonly regarded as the transition from ancient to mediæval and modern history" (*Sidgwick*). Why?
 12. To what causes would you attribute the downfall of the ancient City State?
 13. Did 'Law' in the Austinian sense of the term exist during the Middle Ages?
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ECONOMICS.

GROUP B.

COMPARATIVE STUDY OF POLITICAL INSTITUTIONS.

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

Only SIX questions may be attempted, of which THREE must be taken from each half.

The questions carry equal marks.

FIRST HALF.

Examiner—ARTHUR BROWN, ESQ., M.A.

1. "The inherent difficulties of modern democratic government are so manifold and enormous that in large and complex modern societies it could neither last nor work if it were not aided by certain forces which are not exclusively associated with it but of which it greatly stimulates the energy" (*Maine*: "Popular Government"). Comment.

2. Discuss the extent to which it is possible to make use of exact definition in the classification of political institutions.

3. Discuss the influence of historical accident on constitutional development.

4. "A tendency to democracy does not mean a tendency towards liberty to place the chief power in the most ignorant classes is to place it in the hands of those who naturally care least for political liberty in all ages and countries it is the upper and middle classes which have chiefly valued constitutional liberty, and these classes it is the work of democracy to dethrone" (*Lecky*). Comment.

5. "An English parliamentarian who observes the American House (of Representatives) at work is more impressed by the points of contrast (with the House of Commons) than by those of similarity. The life and spirit of the two bodies are wholly different" (*Bryce*). Comment.

SECOND HALF.

Examiner—BEPINBIHARI SEN, ESQ., M.A.

1. Distinguish between a Parliamentary and a Non-parliamentary executive, and point out the relative advantages and disadvantages of each by a reference to the English, the American and the German constitutions. Compare the position of the English king with that of the American president.

2. What are the uses of a Second Chamber? Compare the constitution and functions of the American Senate with those of the German Bundesrath and of the Senate of Republican Rome. What reforms do you suggest to make the English House of Lords an efficient Second Chamber?

3. Discuss the relative merits of a flexible and a rigid constitution. Explain the constitution and functions of the Supreme Court of the United States.

4. What are the leading characteristics of federal government? Distinguish between an ancient and a modern federal state. Compare the American, the Swiss and the German systems of federal government, and state your reasons for and against a federation of the British Empire.

5. "Rousseau borrowed from Hobbes the true conception of sovereignty and from Locke the true conception of the ultimate seat and origin of authority." Fully expand and explain the statement.

ECONOMICS.

GROUP B.

COMPARATIVE STUDY OF SOCIAL INSTITUTIONS.

FIRST PAPER.

Candidates are required to give their answers in their own words as far as practicable.

All the questions carry equal marks.

FIRST HALF.

Examiner—P. ANSTEY, ESQ., M.A.

Full marks—50.

Not more than THREE questions to be attempted in this half.

1. In what precise sense are we entitled to speak of, and to study, societies as organisms?

Discuss some general analogies between the physical and the social body.

2. Critically examine the theory that the origin of religious conceptions and practices is deducible from primitive man's belief in doubles and ghosts.

3. Explain and illustrate the nature and functions of the tabu.

4. "The history of political ideas begins with the fact that kinship in blood, as typified in the patriarchal family, is the sole possible ground of community in political functions."

Comment on this quotation.

5. What, in your opinion, is there of permanent value to the Sociologist in the fundamental ideas of Auguste Comte?

SECOND HALF.

Examiner—A. BROWN, ESQ., M.A.

Full marks—50.

Not more than THREE questions to be attempted in this half.

1. Lecky maintains that "in the great conflicts between argument and persecution the latter has been continually triumphant." ["*The Rise and Influence of Rationalism in Europe.*"] There are some writers however [e.g. Leslie Stephen] who hold the contrary view, viz. that religious persecution has rarely if ever achieved its object.

Discuss these two views fully, and give your own opinion.

2. Discuss the importance of the belief in magic as a factor promoting the growth of civilisation.

3. "It would appear that the followers of Spencer generally come to identify evolution with progress." (*Keller*.)

Discuss carefully whether this was Spencer's own view.

4. "When we find a Society very virtuous or very vicious—when some particular virtue or vice occupies a peculiar prominence, or when important changes pass over the moral conceptions or standard of the people—we have to trace in these things simply the action of the circumstances that were dominant. The history of Roman ethics represents a steady and uniform current, guided by the general conditions of Society, and its progress may be marked by the successive ascendancy of the Roman, the Greek and the Egyptian spirit." [*Lecky*: "History of European Morals."]

Comment.

5. Discuss the extent to which the telic element entered into the primitive organisation of Society.

ECONOMICS.

GROUP B.

COMPARATIVE STUDY OF SOCIAL INSTITUTIONS.

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

FIRST HALF.

Examiner—RADHAKAMAL MUKERJEE, ESQ., M.A.

Full marks—50.

Answer any THREE.

1. Examine the chief contrasts between Western and Indian institutions of marriage. Classify the main types of exogamous and endogamous divisions which are found in India.

2. Give a brief account of the general principles of the system of Totemism. Give instances from the Indian Aboriginal tribes.

3. Indicate the steps in the gradual process of assimilation of the Aboriginal tribes into Hinduism. Give illustrations.

4. Criticise Risley's main conclusions as regards the relation of caste to race. How far can anthropometry be regarded as a test of race?

5. Examine the significance of any three of the following:—

(1) The ceremony of the Sraddha.

(2) *Kulinism*.

(3) *Sambandham*.

(4) The worship of Shitala or Ola-bibi.

(5) The Ten Incarnations myth.

(6) *Melas* and processions.

SECOND HALF.

Examiner—R. N. GILCHRIST, Esq., M.A.*Full marks*—50.*THREE questions to be attempted.**The questions are of equal value.*

1. Analyse, showing their comparative value, the various kinds of evidence which enable us to trace early types of social organisation.
2. What are the leading features of Animism? Refer in your answer to the chief animistic tribes in India, describing some of their beliefs.
3. Write a short Essay on the social value of superstition.
4. What are the fundamental principles governing Poor Relief? Show how the accepted principles of the West differ from the customary methods prevalent in Bengal.
5. Give a general description of the character and composition of the population of Calcutta. What light does it throw on some of the practical problems of Calcutta city life?

ECONOMICS.

GROUP B.

INTERNATIONAL LAW.

FIRST PAPER.

Examiner—A. BROWN, Esq., M.A., LL.B.*Six questions to be attempted.*

1. Discuss the influence of Roman Law upon the Formation of Modern International Law.
2. Contrast and compare the legal positions of the Suez and Panama Canals.
3. Write notes on the history and present position of the extraterritorial rights of European States in independent countries of oriental civilisation.
4. Write notes on the legal status prior to the present war of *any three* of the following :—(a) Finland, (b) Kiao-chow, (c) Egypt, (d) Mongolia.
What changes (if any) *de jure* or *de facto* have since taken place?
5. Show historically how certain countries came to occupy a privileged position as Great Powers. Discuss how far (if at all) this privileged position conflicts with the principle of the equality of all States in International Law.
6. Write historical notes on the treatment accorded to the Dardanelles in the nineteenth century.
7. Discuss fully the legal responsibility of the various governments established at present in different parts of Russia for the national debt incurred by undivided monarchical Russia.
8. Discuss the cases that have arisen since 1914 bearing upon the question of the privileges and immunities of diplomatic envoys and their staffs.

9. "The doctrine of servitudes as it at present stands in international law is in a very incoherent state." Comment.

10. Discuss carefully the extent to which the condition *rebus sic stantibus* attaches to treaties.

ECONOMICS.

GROUP B.

INTERNATIONAL LAW.

SECOND PAPER.

Examiner—S. C. CHAKRABARTI, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Six questions to be attempted.

1. "International law has come to an end. Its rules are now no more than so many well-meaning counsels of perfection, certain to be ignored when they thwart, as they often must, the interests of belligerents." Criticise.

2. Give an account of the variations of usage in respect to the need of formal declaration before beginning war. Why is a precise declaration of war regarded as desirable?

3. Distinguish between Retorsions and Reprisals as measures of constraint short of war. Consider whether the following are legitimate forms of Reprisal: (i) sequestration of the public debts of the state; (ii) arrest of subjects of the offending state as hostages.

4. Trace clearly the steps by which the existing code of land warfare has been elaborated. Notice in particular the contributions of—

(a) Lieber; (b) The Brussels Conference, 1874; (c) The Hague Conference, 1899.

5. Define 'Commercial domicile.' How has this conception been employed in the determination of enemy character?

6. The *Rothersand*, a merchant vessel, had been the property of a German company engaged in the trade of carrying molasses. On August 1, 1914, whilst it was on the high seas, on a voyage between Hamburg and London, it was alleged to have been sold, under a contract made by telegram, to an English company carrying on the same business. Flying the German flag it arrived at the British port of Gravesend on August 5. There it was seized as a prize, and a suit was brought for its detention.

Discuss the questions of international law involved in this case.

7. Explain carefully what is meant by the statement that 'the military occupant should act as a usufructuary.' Has practice conformed to this rule?

8. Consider whether a belligerent may lawfully destroy enemy merchant vessels without taking them into a prize-court. Criticise the statement: "If the right of destruction were denied, German measures against the Commerce of England at present would be practically impossible."

9. What is the Right of Angary? Give historical instances of the exercise of this right. How would you justify the recent seizure of Dutch vessels by the Allies?

10. State the rules of International law regarding the employment of civil population by an army of occupation. How far have the belligerents adhered to these rules in the present war?

11. Examine, with special reference to the incidents of the present war, whether a belligerent airship violates the neutrality of a state by flying over its territory.

Are Aeronauts engaged in aerial warfare lawful combatants?

12. State and annotate *two* of the following cases :—

- (1) *Wolff v. Oxholm* (1817).
- (2) The case of the Elector of the Hesse-Cassel.
- (3) *The Harmony* (1800).
- (4) *The Chile* (1914).
- (5) *The Alfred Nobel* (1915).

ECONOMICS.

ESSAY.

GROUPS A AND B.

EIGHTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

Indicate on the cover of the answer-book the subject of your essay by the use of the appropriate number, e.g. I, II.

Write an essay on any one of the following subjects :—

I.

Examiner—C. H. HAMILTON, Esq., M.A.

Mercantilism.

II.

Examiner—P. C. GHOSH, M.A., B.Sc.

“Credit is the vital air of modern commerce.”

III.

Examiner—J. C. COYAJI, B.A., LL.B.

Railway development in India.

IV.

Examiner—DR. PRAMATHANATH BANERJEE, D.Sc.

Influence of wars on the growth of Protection.

V.

Examiner—B. MUKHERJEE, Esq., M.A.

Development of Responsible Government in India and its compatibility with the British parliamentary sovereignty.

VI.

Examiner—SIR ASUTOSH MUKHERJEE, Kt.

Progress of mathematical economics during the Nineteenth Century.

VII.

Examiner—BEPINBEHARI SEN, M.A.

Democracy : its past, present and the hopes of the future.

VIII.

Examiner—P. MUKHERJEE, Esq., M.A.

The ideals of world empire : ancient and modern.

IX.

Examiner—A. BROWN, Esq., M.A.

Extradition.

X.

Examiner—RADHAKAMAL MUKHERJEE, Esq., M.A.

The Social Problems of Indian City Life.

M.A. & M.Sc. EXAMINATIONS.

1918.

PURE MATHEMATICS.

FIRST PAPER.

Examiners— $\left\{ \begin{array}{l} \text{S. C. GHOSH, Esq., M.A.} \\ \text{H. P. BANERJEE, Esq., M.Sc.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

Candidates are required to answer only SIX questions, three from each group.

All questions are of equal value.

GROUP A.

1. (a) Show that the number of r combinations of n letters, when each letter may be repeated any number of times up to r , is

$$\frac{n(n+1)(n+2) \dots (n+r-1)}{1 \cdot 2 \cdot 3 \cdot 4 \dots r}.$$

(b) In an election under the cumulative system there are p candidates and q seats. In how many ways can an elector give his votes, supposing that he does not withhold any vote? ^a

2. (a) Prove that $\lim_{x \rightarrow \infty} \frac{f(x+1)}{f(x)} = \lim_{x \rightarrow \infty} \left\{ f(x) \right\}^{\frac{1}{x}}$, if $\lim_{x \rightarrow \infty} \frac{f(x+1)}{f(x)}$ be not indeterminate.

(b) Find the value of

$$\lim_{x \rightarrow \infty} \sin x \cot \frac{a}{x} \log \left(1 + \tan \frac{a}{x} \right).$$

3. Show that the series

$$\sum_{n=1}^{\infty} \frac{(-1)^{n-1}}{n+z^2}$$

although conditionally convergent, is for all values of z uniformly convergent.

4. (a) Define the terms *hyperbolic sine* and *hyperbolic cosine*. Show their analogy to the circular functions, explaining the propriety of their nomenclature.

(b) Show that

$$\tan(x+iy) = \frac{\sin 2x + i \sinh 2y}{\cos 2x + \cosh 2y}.$$

5. Show that

$$\frac{1}{1 \cdot 2 \cdot 3 \cdot 4} + \frac{1}{5 \cdot 6 \cdot 7 \cdot 8} + \frac{1}{9 \cdot 10 \cdot 11 \cdot 12} + \dots = \frac{1}{4} \log 2 - \frac{\pi}{24}.$$

GROUP B.

6. Give a rigorous and complete proof of the irrationality of π .

7. Prove rigorously the Exponential Theorem for a complex variable.

8. (a) Find the necessary and sufficient condition for the convergence of an Infinite Product.

(b) Show that

$$\prod_{n=2}^{\infty} \left\{ 1 - \left(1 - \frac{1}{n} \right)^{-n} z^{-n} \right\}$$

converges if $|z| > 1$.

9. (a) Discuss the nature of the difference between the identical and the symmetrical equality of spherical triangles.

(b) Compare the cases of equality of plane triangles with those of spherical triangles.

10. Find the radius of Hart's circle and determine the positions of the points of intersection of Hart's circle with the sides of the triangle.

PURE MATHEMATICS.

SECOND PAPER.

Examiners— $\left\{ \begin{array}{l} \text{S. C. BASU, ESQ., M.A.} \\ \text{I. BRAHMACHARI, ESQ., M.A.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

Six questions are to be attempted, three from each group.

The questions are of equal value.

GROUP A.

1. Explain what is meant by the special roots of the equation $x^n - 1 = 0$. Prove that when one special root of this equation is known, the others can be immediately found.

Find the special roots of $x^{12} - 1 = 0$.

2. Enunciate and prove Fourier's theorem regarding the separation of the roots of equations with numerical coefficients; and from it deduce De Gua's rule for obtaining their imaginary roots.

3. Prove that if the leading constituents of a symmetric determinant be all increased by the same quantity x , the equation in x , obtained by equating to zero the determinant so formed, has all its roots real.

4. If U, V, W are three given functions of x of the degrees $m, n, m+n-1$, respectively, prove that an identical relation exists of the form

$$RW \equiv U\phi(x) + V\psi(x),$$

where $\phi(x)$ and $\psi(x)$ are functions to be determined, of the degrees $n-1$ and $m-1$, respectively, and R is the resultant of U and V .

5. Prove that, if a_1, a_2, \dots, a_n be the roots (all unequal) of $f(x)$ and the coefficient of x^n in $f(x)$ be 1,

$$a_1^{n+r-1} \cdot \frac{1}{f'(a_1)} + \frac{a_2^{n+r-1}}{f'(a_2)} + \dots + \frac{a_n^{n+r-1}}{f'(a_n)}$$

will be equal to the sum of the homogeneous products of r dimensions of powers of the n quantities a_1, a_2, \dots, a_n .

GROUP B.

1. Prove that the exact number of linearly independent seminvariants of degree i , weight w , and extent not exceeding p , is

$$(w, i, p) - (w-1, i, p).$$

2. Show that the covariant derived from the seminvariant C_0 is

$$x^{ip-2w} e^{\frac{y}{x}} C_0.$$

If

$$\phi(a, b, c, d, e, \dots)$$

is a seminvariant, then

$$\phi(o, a, 2b, 3c, \dots)$$

is also a seminvariant.

3. Prove that the sextic covariant G_x of the quartic $\phi(x)$ may be written under the form

$$\{\phi(x)\}^2 \sum \frac{\phi'(a)}{(x-a)^2}.$$

4. If U be any quartic and H_x its Hessian covariant, show that the squares of the four linear factors of U are

$$(\rho_2 - \rho_3) \sqrt{H_x - \rho_1 U} + (\rho_3 - \rho_1) \sqrt{H_x - \rho_2 U} \pm (\rho_1 - \rho_2) \sqrt{H_x - \rho_3 U},$$

where ρ_1, ρ_2, ρ_3 are the roots of $4\rho^3 - I\rho + J = 0$.

5. Write a short note on seminvariants and their properties.

PURE MATHEMATICS.

THIRD PAPER.

Examiners—{ DR. SYAMADAS MUKHERJEE, M.A., PH.D.
S. M. GANGULY, ESQ., M.Sc.

Candidates are required to give their answers in their own words as far as practicable.

Only THREE questions to be attempted from each group.

All questions carry equal marks.

GROUP A.

1. Obtain the equation (Trilinear or Areal) of the nine-points circle of a triangle and shew that the radical axis of the nine-points circle and the circumcircle is the axis of homology of the given triangle and its pedal.

2. Prove that the locus of the centres of the rectangular hyperbolas which have contact of the third order with a given parabola is an equal parabola having the same axis and directrix.

3. Show how four points in a plane can be represented as (f, g, h) , $(-f, g, h)$, $(f, -g, h)$ and $(f, g, -h)$.

Show that the diagonal triangle of the quadrangle formed by these four points is self-polar for all conics drawn through them, and that the locus of the centres of these conics is a conic circumscribing the diagonal triangle.

4. Given any conic and a right line in its plane not cutting it, shew that the conic can be projected into a circle, while the line is projected to infinity.

5. Shew that the Jacobian of the net of conics

$$lU + mV + nW = 0,$$

where U, V, W are any three conics, is the same as that of U, V, W , and that if the three conics pass through the same two points, the Jacobian consists of the common chord and a conic through the two common points.

Hence deduce that the Jacobian of three circles is a circle orthogonal to them all.

6 & 7. Write a short essay on one of the following subjects:—

(i) Method of Reciprocal Polars.

(ii) Confocal Conics.

N.B.—The essay is equivalent to two questions.

GROUP B.

8. Show that a proper curve of the n^{th} order cannot have more than $\frac{1}{2}(n-1)(n-2)$ double points.

Also prove that the first polar of any point passes through every double point on a curve, and that its tangent at that point and the line joining the double point with the pole form with the tangents to the original curve at the double point a *harmonic pencil*.

9. Establish the Plücker's formulae:—

$$(1) \quad m = n(n-1) - 2\delta - 3k,$$

$$(2) \quad i = 3n(n-2) - 6\delta - 8k,$$

and deduce

$$\frac{1}{2}n(n+3) - \delta - 2k = \frac{1}{2}m(m+3) - \tau - 2i.$$

10. Prove that if a curve of the third order pass through eight of the points of intersection of two curves of the third order, it passes through the ninth point of intersection.

To whom is this theorem due?

Can you apply this to prove that the tangentials of the three points at which a conic has simple contact with a curve of the third order are in one right line?

Deduce that the tangentials of three collinear points on a curve of the third order are collinear.

11. Shew that every non-singular cubic can be reduced to the canonical form

$$x^3 + y^3 + z^3 + 6mxyz = 0$$

and that the reduction can be effected in four different ways.

Can you use this form to show that a non-singular cubic has three real points of inflexion and that they lie on the right line $x+y+z=0$?

12. Define the *Cayleyan* of a cubic and show that the Cayleyan touches the nine inflexional tangents as well as the nine harmonic polars, and that these latter are cuspidal tangents to the Cayleyan.

13. Shew that through the four points of contact of any two bitangents of a quartic five conics can be described, each of which passes through the four points of contact of two other bitangents.

14. What is a *bicircular quartic*?

Show that the envelope of a variable circle which cuts a fixed circle orthogonally and whose centre moves along a fixed conic is a bicircular quartic.

Prove that the variable circle has double contact with the quartic and that the chord of contact always passes through the centre of the fixed circle.

PURE MATHEMATICS.

FOURTH PAPER.

Examiners—{ B. M. SEN, ESQ., M.Sc.
DR. HARIDAS BAGCHI, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

Attempt only THREE questions from each group.

The questions are of equal value.

GROUP A.

1. Show how to put the equations of any right line in the forms

$$\left. \begin{aligned} x &= az + b, \\ y &= cz + d, \end{aligned} \right\} .$$

and prove that the line will trace out a ruled surface, if the constants a, b, c, d be connected by three given relations.

Verify that the locus of the line

$$\left. \begin{aligned} x &= az + \phi(a), \\ y &= a^2z + \psi(a), \end{aligned} \right\}$$

will reduce to a developable, when $\psi'(a) = 2a\phi'(a)$.

2. Prove that a quadric possesses, in general, two *distinct* systems of generators. Modify this theorem (if necessary) in the case of a cone. Can you prove that every ruled surface, which admits of two systems of generators, is necessarily a quadric?

3. Discuss the nature of a plane section of a given conicoid, and derive conditions for a parabolic section.

Establish the following propositions:—

(i) A conicoid has, in general, a two-fold infinity of planes whose sections are parabolas.

(ii) A pair of conicoids has, in common, a one-fold infinity of planes of parabolic section.

(iii) Three given conicoids can have a common plane of parabolic section, when and only when they have a common tangent line at infinity.

4. Explain briefly the general principles of reciprocation. Prove that a quadric reciprocates into another quadric, and find the locus of the origin of reciprocation, in order that the transformed quadric may be a paraboloid. Hence or otherwise devise a method of reciprocating three given conicoids into paraboloids.

5. Indicate any general method of finding the envelope of a one-parameter family of planes.

Find the envelope of the plane $lx + my + nz = p$, subject to the conditions

$$l^2 + m^2 + n^2 = 0,$$

$$a^2l^2 + b^2m^2 + c^2n^2 = p^2;$$

and apply your result or proceed otherwise to prove that the envelope of a system of confocal conicoids is a developable, whose edge of regression is a *null-line*.

GROUP B.

6 Establish Serret-Frenet formulæ, viz. :—

$$\frac{da}{ds} = -\frac{b}{\rho}, \quad \frac{db}{ds} = \frac{c}{\sigma} - \frac{a}{\rho}, \quad \frac{dc}{ds} = -\frac{b}{\sigma}.$$

Use the third formula to shew that, if the binormals of a curve are parallel to one another, the curve must lie in a plane.

7 Adopting the usual notation, express the equation of the asymptotic lines of a surface in the form

$$L dp^2 + 2M dp dq + N dq^2 = 0.$$

Examine the singular solution, and deduce immediately that the parabolic curve must touch every asymptotic line of the surface.

8. Obtain conditions that the parametric curves may be (i) null-lines; (ii) asymptotic lines.

For the surface given by

$$x = qf(p) + a_1q + b_1,$$

$$y = w \cdot qf(p) + a_2q + b_2,$$

$$z = w^2 \cdot qf(p) + a_3q + b_3,$$

(where w is an imaginary cube root of unity), prove that the sets of curves $p = \text{const.}$ and $q = \text{const.}$ are respectively asymptotic lines and null-lines.

9. For a general surface, the edge of regression on the developable surface generated by the normals along a line of curvature is a geodesic on the corresponding sheet of the centro-surface.

Verify that the lines of curvature on the quadric

$$\frac{y^2}{a} + \frac{z^2}{c} = 4x$$

are the intersections by the confocal quadrics

$$\frac{y^2}{a-p} + \frac{z^2}{c-p} = 4(x-p).$$

10. Define the geodesic curvature and torsion of a curve on a surface. Shew that the general solution of the equation $\Delta\phi = 1$ determines a family of geodesic parallels cut orthogonally by a family of geodesics.

PURE MATHEMATICS.

FIFTH PAPER.

Examiners—{ HON. MR. R. P. PARANJPE. M.A.
M. GUPTA, ESQ.. M.Sc.

Candidates are required to give their answers in their own words
as far as practicable.

The figures in the margin indicate full marks.

FIVE questions are to be attempted, but not more than three
from either part.

PART I.

1. (a) Explain, with illustrative examples, what is meant by a 20
monotone sequence.

If the sequence whose n^{th} term is a_n is monotone, prove that the
same is true also of the sequence whose n^{th} term is

$$a_1 + a_2 + \dots + a_n$$

(b) Draw a graph of the function y defined by the following equation :—

$$y = \lim_{n \rightarrow \infty} \frac{1}{1 + n \sin^2 \pi x}.$$

2. (a) When is a function $f(x)$ said to possess a differential coefficient at $x=a$? 20

A function $f(x)$ is defined in the following way :—

$$f(x) = x \sin \frac{1}{x}, \text{ when } x \neq 0,$$

$$\text{and } = 0, \text{ when } x = 0;$$

examine whether or not it possesses a differential coefficient at $x=0$.

(b) If $f(x)$ has a derivative for all values of x in the interval
($a, a+h$), establish the following relation :

$$f(x+h) = f(x) + hf'(x+\theta h), \quad (0 < \theta < 1);$$

show that the limit when $h \rightarrow 0$ of the number θ , which occurs in the
above theorem, is $\frac{1}{2}$, provided $f''(x)$ is continuous.

3. State and prove Euler's Theorem on Homogeneous Functions 20
in the case of n independent variables.

Employ the above theorem to prove (or otherwise deduce) that if

$$V = ax^2 + 2bxy + cy^2,$$

$$\left(\frac{\partial V}{\partial x}\right)^2 \cdot \frac{\partial^2 V}{\partial y^2} - 2 \cdot \frac{\partial V}{\partial x} \cdot \frac{\partial V}{\partial y} \cdot \frac{\partial^2 V}{\partial x \partial y} + \left(\frac{\partial V}{\partial y}\right)^2 \cdot \frac{\partial^2 V}{\partial x^2} = 8V(ac - b^2).$$

4. When are two proper curves of the m^{th} and n^{th} degrees ($m > n$) 20
said to have the closest possible contact between them, and what
will the order of contact be in such a case?

If the equation to a curve passing through the origin be

$$u_1 + u_2 + u_3 + \dots = 0,$$

where u_n is a homogeneous function of x, y of n dimensions, show that the general equation to all conics having the same curvature at the origin as the given curve is

$$u_1 + u_2 + (lx + my) u_1 = 0,$$

where l and m are two arbitrary constants.

5. Define the Jacobian of a system of n functions with respect to n independent variables.

If
$$\frac{d(y_1, y_2, y_3)}{d(x_1, x_2, x_3)}$$

denotes the Jacobian of y_1, y_2, y_3 with respect to x_1, x_2, x_3 , and

$$\frac{d(x_1, x_2, x_3)}{d(y_1, y_2, y_3)}$$

the Jacobian of x_1, x_2, x_3 , with respect to y_1, y_2, y_3 , prove that

$$\frac{d(y_1, y_2, y_3)}{d(x_1, x_2, x_3)} \times \frac{d(x_1, x_2, x_3)}{d(y_1, y_2, y_3)} = 1;$$

and deduce that

$$\frac{d(y_1, y_2, y_3)}{d(x_1, x_2, x_3)} = 4, \text{ where } y_1 = \frac{x_2 x_3}{x_1}, y_2 = \frac{x_3 x_1}{x_2}, y_3 = \frac{x_1 x_2}{x_3}.$$

6. Transform Laplace's Equation $\nabla^2 V = 0$ into orthogonal curvilinear coordinates; and thence or otherwise obtain the transformation in terms of spherical polar co-ordinates (r, θ, ϕ) .

7. Write an essay on one of the following subjects:—

- (a) Bernoulli's numbers.
- (b) Gamma Functions.
- (c) Epi- and Hypo-cycloids.
- (d) Taylor's Theorem.
- (e) Green's Theorem.

PART II.

8. (a) If $f(x)$ and $\phi(x)$ are two integrable functions in the interval (a, b) , of which $f(x)$ is continuous and $\phi(x)$ maintains the same sign in (a, b) , shew that

$$\int_a^b f(x)\phi(x)dx = f\{a + \theta(b-a)\} \int_a^b \phi(x)dx, \quad (0 < \theta < 1):$$

how do you modify the theorem if nothing is known as regards the continuity of $f(x)$ in (a, b) ?

(b) Prove under certain conditions (to be specified) that

$$\int_{x_0}^{\chi} f(x)dx = (\xi - a) f(\xi) \log \frac{\chi - a}{x_0 - a}$$

when ξ lies between x_0 and χ .

9. (a) Evaluate, rigorously, one only of the following integrals:— 20

i)
$$\int_0^{\infty} \frac{\cos mx}{1+x^2} dx,$$

(ii)
$$\int_0^x \frac{x^m}{1+x^{2n}} dx,$$

where m and n are positive integers and $m > n$.

- (b) Prove that the integral

$$\int_0^x \frac{\sin x}{a^x} dx,$$

converges *uniformly* in any interval ($0 \leq a \leq h$), where h is an arbitrary positive number as large as we please.

- 10 Shew that

20

$$\int_0^{\infty} e^{-x} x^{n-1} dx$$

cannot have a finite value when n is negative; and establish Euler's Theorem:—

$$\Gamma\left(\frac{1}{n}\right) \Gamma\left(\frac{2}{n}\right) \dots \Gamma\left(\frac{n-1}{n}\right) = \frac{(2\pi)^{\frac{n-1}{2}}}{n^{\frac{1}{2}}}.$$

11. (a) How do you define the double integral of a bounded function $f(x, y)$ of two independent variables x and y , extended over a finite region?

- (b) Transform

$$\iint_{(A)} dx dy$$

into polar co-ordinates, where the field of integration A is a rectangle two of whose adjacent sides coincide with the co-ordinate axes; evaluate the transformed double integral in two different ways and thence shew that the results agree with the value of

$$\iint_{(A)} dx dy.$$

12. Establish Green's Theorem for plane, viz.,

20

$$\iint_{(A)} \left(\frac{\partial Q}{\partial x} - \frac{\partial P}{\partial y} \right) dx dy = \int_{(\Gamma)} (P dx + Q dy).$$

where the double integral is extended over any closed region A and the line integral along the length of the entire contour Γ bounding the closed region A .

If A and B are two points on the y -axis, calculate the curvilinear integral

$$\int [\{ \phi(y)e^x - my \} dx + \{ \phi'(y)e^x - m \} dy]$$

taken along the length of any path AMB which begins at A and ends at B and is such that the enclosed area $AMBA$ is of given magnitude S , m denoting a fixed constant and $\phi(y)$ as well as $\phi'(y)$ being continuous for all points inside and on the boundary of the region $AMBA$.

13. Shew the integral calculus can be applied to the solution of questions in mean value and probability. 20

Through P any point within an ellipsoid, a chord QPQ' is drawn parallel to a given semi-diameter ρ ; shew that the mean value of $\phi(QP \cdot PQ')$ for all points P within the ellipsoid is

$$3 \int_0^{\frac{\pi}{2}} \phi(\rho^2 \cos^2 \theta) \sin^2 \theta \cos \theta \, d\theta.$$

14. Give a rigorous demonstration of the following limit :— 20

$$\lim_{n \rightarrow \infty} \int_0^h f(x) \frac{\sin nx}{x} \, dx \rightarrow \frac{\pi}{2} f(+0),$$

where h is positive and different from zero, and $f(x)$ is a function satisfying Dirichlet's usual conditions in $(0, h)$;

Or,

Shew that the series

$$a_0 + \sum_{m=1}^{\infty} (a_m \cos mx + b_m \sin mx),$$

converges to the limit

$$\frac{1}{2} \{ f(x+0) + f(x-0) \}, \text{ for } -\pi < x < \pi,$$

and to the limit

$$\frac{1}{2} \{ f(-\pi+0) + f(\pi-0) \}, \text{ for } x = \pm \pi;$$

a_0 , a_m , b_m being the usual Fourier Coefficients and $f(x)$ satisfying Dirichlet's usual conditions in $(-\pi, +\pi)$.

PURE MATHEMATICS.

SIXTH PAPER.

Examiners— $\left\{ \begin{array}{l} \text{DR. D. N. MALLIK, B.A., SC.D.} \\ \text{N. K. MAJUMDAR, ESQ., M.A.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

All questions are of equal value.

Candidates are permitted to attempt only THREE questions from each part.

FIRST PART.

1. Reduce the equation

$$axy \left(\frac{dy}{dx} \right)^2 + (x^2 - ay^2 - b) \frac{dy}{dx} - xy = 0$$

to Clairaut's form, and hence solve the equation.

Or,

Solve the Riccati's equation

$$\frac{dy}{dx} = \cos x - y \sin x + y^2.$$

Solve completely

$$3x^3 \frac{d^3y}{dx^3} + 2x^2 \frac{d^2y}{dx^2} + x \frac{dy}{dx} - y = 3x^3 + x^2 + x.$$

3. Integrate

$$(y^2 + yz)dx + (zx + z^2)dy + (y^2 - xy)dz = 0,$$

showing that the condition of integrability subsists.

Or,

Verify that the left-hand side of the equation

$$(\sin x - x \cos x) \frac{d^2y}{dx^2} - x \sin x \frac{dy}{dx} + y \sin x = x$$

vanishes when $y = \sin x$; and obtain the primitive.

4. Find the first necessary condition to be satisfied by y in order that it may render

$$J = \int_a^{x_1} F(x, y, y') dx$$

an extremum.

Illustrate this by considering the case of the surface of minimum area generated by the revolution of a plane curve between two given points about a given line in its plane but not intersecting the curve.

5. Prove Sturm's Oscillation-theorem.

If y_1 and y_2 are two particular solutions of the equation

$$\frac{d^2y}{dx^2} + P \frac{dy}{dx} + Qy = 0,$$

the roots of $y_1=0$ and $y_2=0$ separate each other so long as both of these solutions remain continuous.

Briefly explain the utility of this theorem in the calculus of variations.

Or,

Assuming the solution of Euler's differential equation

$$\frac{\partial F}{\partial y} - \frac{d}{dx} \frac{\partial F}{\partial y'} = 0,$$

deduce the solution of Jacobi's differential equation

$$(P-Q')u - \frac{d}{dx} (Ru') = 0.$$

6. SECOND PART.

6. Discuss geometrically the nature of the primitive of a differential equation of the first order, the singular solution, the tac-locus, the nodal locus and the cuspidal locus.

The primitive differential equation

$$\left(\frac{2x^2+1}{2} \right) \left(\frac{dy}{dx} \right)^2 + (x^2+2xy+y^2+2) \frac{dy}{dx} + (2y^2+1) = 0$$

is

$$c^2 + c(x+y) + 1 - xy = 0.$$

Verify this, and obtain the singular solution and identify the associated loci.

7. Find the form of ϕ such that, if $x = \phi(z)$ be substituted in the equation

$$x^4 \frac{d^2y}{dx^2} + 2x^3 \frac{dy}{dx} + n^2y = 0,$$

it will become

$$\frac{d^2y}{dz^2} + n^2y = 0.$$

Hence obtain the solution of the former equation.

8. (1) Integrate in series :

$$\frac{d^2y}{dx^2} + \frac{1}{x} \frac{dy}{dx} + \left(1 - \frac{n^2}{x^2} \right) y = 0.$$

(2) Prove that
$$\frac{d}{dx} (x^n J_n) = x^n J_{n-1}.$$

9. Integrate the equation

$$x^2p + y^2q = z^2,$$

and find the equation of the cone of the second degree which satisfies the equation and passes through the point (1, 2, 3).

10. Solve the equation

$$x^2 \frac{\partial^2 z}{\partial x^2} - y^2 \frac{\partial^2 z}{\partial y^2} = y \frac{\partial z}{\partial y} - x \frac{\partial z}{\partial x}.$$

PURE MATHEMATICS.

SEVENTH PAPER

THEORY OF FUNCTIONS.

FIRST PAPER.

Examiners—{ DR. GANES PRASAD, D.Sc.
DR. SYAMADAS MUKHERJEE, M.A., Ph.D.

*Candidates are required to give their answers in their own words
as far as practicable.*

*Not more than THREE questions out of each group
to be attempted.*

All the questions carry equal marks.

GROUP I.

1. Shew that if a sequence be such that each element after some fixed element is greater than the preceding element and all the elements are less than some fixed number, the sequence is convergent.

If a be any real positive number less than unity shew that the limit of the sequence $\{a^n\}$ is zero.

2. Define a *closed set* and a *perfect set*.

Shew that the derivative of any given set is a closed set which is perfect if the given set be dense-in-itself.

3. Shew that if an infinite set of intervals in (a, b) is such that every point of (a, b) is an interior point of at least one interval (the end points a and b being each an end point of at least one interval), then a finite number of intervals can be selected out of the given set which has the same property as the given set.

4. Explain the term *enumerable* when referred to a set of points.

Prove that the set of Algebraic numbers is an enumerable one.

5. Shew that the n -dimensional continuum has the same power as the one-dimensional continuum.

GROUP II.

6. Define the differential coefficient of $f(x)$ at a given point in the domain of $f(x)$.

Prove that the differential coefficient of $f(x)$ is non-existent for every value of x .

if
$$f(x) = \sum_{n=0}^{\infty} \frac{\cos(13^n x)}{2^n}.$$

7. Define the *partial* differential coefficients of $f(x, y)$ with respect to x and y at a given point (a, b) in the domain of $f(x, y)$.

Explain in what sense, and determine under what conditions, we may write

$$df = dx \frac{\partial f}{\partial x} + dy \frac{\partial f}{\partial y}$$

where

$$\frac{\partial f}{\partial x} \text{ and } \frac{\partial f}{\partial y}$$

denote partial differential coefficients.

8. Give a description of a curve which is continuous and passes through each point of a square at least once.

9. Shew that, if $f(x)$ be continuous in the interval (a, b) and $F(x)$ denote the integral of $f(x)$, then at every point of (a, b) , $F(x)$ possesses a differential coefficient which is equal to $f(x)$.

Shew that if $\phi(x)$ has at every point of (a, b) a differential coefficient $f(x)$ which is a continuous function of x , then

$$\phi(x) - \phi(a) = \int_a^x f(x) dx.$$

10. Explain under what conditions an improper integral of $f(x)$ exists in an interval (a, b) containing a point c of infinite discontinuity, and under what conditions a principal value of the integral of $f(x)$ in (a, b) exists.

Shew that an improper integral of $\frac{\tan x}{x}$ in the interval $(0, \pi)$ does not exist although a principal value exists.

11. If $f(x)$ be continuous in the interval (a, b) , shew that

$$\int_a^b f(x) dx = (b-a) f\{a + \theta(b-a)\}, \quad 0 \leq \theta \leq 1,$$

and if $\phi(x)$ be a limited integrable function which has the same sign throughout (a, b) , except where it may be zero, shew that

$$\int_a^b f(x)\phi(x) dx = f\{a + \theta(b-a)\} \int_a^b \phi(x) dx, \quad 0 \leq \theta \leq 1.$$

PURE MATHEMATICS.

EIGHTH PAPER.

THEORY OF FUNCTIONS.

SECOND PAPER.

Examiner—H. P. BANERJEE, ESQ., M.Sc.

The questions are of equal value.

Answer THREE from each group.

GROUP A.

1. Prove that

$$\left| z + \sqrt{z^2 - c^2} \right| + \left| z - \sqrt{z^2 - c^2} \right| = \left| z + c \right| + \left| z - c \right|.$$

Hence show that if the relations between the z and w -planes be given by

$$z^2 + 2zw \cos \lambda + w^2 = 1,$$

and if z describes an ellipse whose foci are the branch-points in the z -plane, w describes an ellipse whose foci are the branch-points in the w -plane.

2. Prove that the mapping of a sphere upon the complex plane, and conversely, by means of stereographic projection, is conformal.

3. What is meant by the *singular points* of an analytic function?

Show that the classification of analytic functions into rational and transcendental, is *also* possible, from a knowledge of the character of their singular points.

4. Show that

$$\int_0^x e^{-x^2} \cos 2a \cos (x^2 \sin 2a) dx = \frac{\sqrt{\pi}}{2} \cos a.$$

Deduce the value of

$$\cos x^2 dx.$$

5. A rectangular strip of finite breadth and infinite length can be conformally represented on the area of a w -circle, centre the origin, and radius a , by means of the relation

$$\frac{w-1}{w+1} = ae^{iz}.$$

GROUP B.

1. Prove that if h is a positive constant and

$$(1 - 2hz + h^2)^{-\frac{1}{2}}$$

is expanded in the form

$$1 + h P_1(z) + h^2 P_2(z) + h^3 P_3(z) + \dots,$$

where the P 's are Legendre's polynomials, the series converges so long as z is in the interior of an ellipse whose foci are the points $z=1$ and $z=-1$ and whose major axis is

$$\frac{1}{2} \left(h + \frac{1}{h} \right).$$

2. If an analytic function w of z be defined only for a region in the positive half of the z -plane and if continuous real values of w correspond to continuous real values of z , then w can be continued across the axis of real quantities.

3. Explain the use of *Riemann surface* in mapping multiple-valued functions.

Discuss the Riemann surface for

$$w = \sqrt{z - z_0} + 3 \frac{\overline{z}}{z - z_1}$$

4. If $0 < a < 1$, show that

$$\frac{e^{az}}{e^z - 1} = \frac{1}{z} + \sum_{n=1}^{\infty} \frac{2z \cos 2n\pi - 4n\pi \sin 2n\pi}{z^2 + 4n^2\pi^2}$$

5. Show that the function

$$c_1 w + c_2 = \int_0^z \frac{dz}{z^{1-a} (z-1)^{1-\beta}},$$

determine a conformal representation of a rectilinear triangle (with angles α, β, γ) in the w -plane, on the z -plane.

PURE MATHEMATICS.

SEVENTH PAPER.

THEORY OF GROUPS.

FIRST PAPER.

Examiner—DR. SYAMADAS MUKHERJEE, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

All questions carry equal marks.

Candidates are permitted to attempt THREE questions only from each half.

FIRST HALF.

1. (i) If $b^{-1}ab = a^k$, show that

$$b^{-n}ab^n = a^{k^n}.$$

- (ii) If $a^{-1}b^{-1}ab = c$ and if c be permutable with a and b , show that $(ba)^t = b^t a^t c^{\frac{1}{2}(t-1)}$.

2. Show that a given permutation is either always expressible as a product of an even number of transpositions or as a product of an odd number of transpositions.

Show that every positive permutation of n given letters a_1, a_2, \dots, a_n can be expressed in terms of circular permutations of the form $(a_1 a_2 a_p)$.

3. If G be a group of order N , and H a subgroup of order n , then n is a factor of N .

Show that every subgroup of a cyclic group is cyclic, and that a cyclic group contains only one subgroup of given index.

4. If H be a normal subgroup of G , explain what group is represented by G/H .

If H is a normal subgroup of G , then to each subgroup A of G/H there corresponds a subgroup L of G , such that $A \equiv L/H$, and that if A is normal in G/H , then L is normal in G .

5. When is a permutation group said to be imprimitive?

If a group G of order n can be expressed as a transitive permutation group of degree n in which the n symbols are divided into imprimitive sets of r symbols, show that G has a normal subgroup of order r . Is the converse true?

SECOND HALF.

6. Show that the alternating permutation group A of degree m is simple unless $m=4$.

Show that the symmetric permutation group G of degree m can contain no normal subgroup except the alternating group A of degree m unless $m=4$.

7. Show that if H is any normal subgroup of a group G , the commutant of G/H is $\{H, \Delta\}/H$.

Show that if any normal subgroup H of a group G coincides with or contains the commutant Δ of G , then G/H is Abelian, and conversely.

8. Show that if p^a is the highest power of a prime p which divides the order n of a group G , then G contains at least one subgroup of order p^a .

Show that if every Sylow subgroup of a group G is normal in G , then G is the direct product of these Sylow subgroups.

9. Show that every group G of order p^a where p is prime contains self-conjugate elements.

Show that every subgroup H of order p^s in any group G of order p^a is contained normally in a subgroup of order p^{s+1} .

10. Explain (with examples in each case) when two groups are simply or multiply isomorphic.

Show that the simple isomorphisms of a group G with itself define an intransitive permutation group \bar{L} . If G and \bar{L} are both regarded as permutation groups and have orders m and n , show that $\{G, \bar{L}\}$ is a transitive group of degree m and order mn containing G as a normal subgroup.

PURE MATHEMATICS.

EIGHTH PAPER.

THEORY OF GROUPS.

SECOND PAPER.

Examiners— $\left\{ \begin{array}{l} \text{DR. C. E. CULLIS, M.A., PH.D.} \\ \text{N. K. MAJUMDAR, ESQ., M.A.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

All questions carry equal marks.

Candidates are permitted to attempt THREE questions only from each half.

FIRST HALF.

1. Prove Lagrange's theorem: If a rational integral function of the roots x_1, x_2, \dots, x_n of an equation remains unaltered by all the substitutions which leave another rational integral function unaltered, then the first is a rational integral function of the second and the elementary symmetric functions.

Hence show that each of Δ and θ can be expressed as a rational integral function of the other,

where

$$\Delta \equiv (x_1 - x_2)(x_2 - x_3)(x_3 - x_1),$$

and

$$\theta \equiv (x_1 + wx_2 + w^2x_3)^3,$$

x_1, x_2, x_3 being the roots of a cubic equation.

2. If a function $\psi(x_1, x_2, \dots, x_n)$ belongs to a subgroup H of index v under G , find the necessary condition that the resolvent equation for ψ may be binomial.

Can the resolvent equation for the roots of the general cubic be binomial? Show reasons.

3. Define a *series of composition*.

Show that a given group may have many different series of composition, but that in all of them the number of terms is the same and the successive factor-groups differ only in the order of their arrangement.

4. Define the group of an equation in a domain R according to the Galois Theory.

Show that the group possesses the following two properties.

(a) Every rational function of the roots which remains unaltered by all the substitutions of the group lies in R .

(b) Every rational function of the roots which equals a quantity in R remains unaltered by all the substitutions of the group.

5. Prove that if an equation is irreducible in R , its group for R is transitive; if reducible, the group is intransitive.

Prove that the order of the group of the equation $x^4 + 1 = 0$ for the domain of rational numbers cannot be less than 4. Is the group transitive in the domain $(1, i)$? Give reasons.

SECOND HALF.

6. If x_1, x_2, \dots, x_n are the roots of a rational integral equation in R whose group is G , find the group of the resolvent equation for the rational function $\psi(x_1, x_2, \dots, x_n)$ in R which belongs to a subgroup H of index v under G .

Find the relation between this group, G and H .

7. Define a solvable group.

Assuming that an equation which has a regular cyclic group of prime order p for a domain R containing its coefficients and an imaginary p^{th} root of unity is solvable by radicals in R , deduce the general theorem that an equation is solvable by radicals in a domain R containing its coefficients if and only if its group in R is solvable.

8. What is an *Abelian equation*?

Show that the group G of an Abelian equation is a regular cyclic group, and conversely.

9. Define a *metacyclic group*.

Find an analytical representation of the metacyclic group of prime degree p .

10. Show that a regular *pentagon* can be constructed with ruler and compasses, and that it is equivalent to the algebraic solution of $x^5 - 1 = 0$. Give the corresponding constructions.

PURE MATHEMATICS.

SEVENTH PAPER.

FINITE DIFFERENCES.

FIRST PAPER.

Examiner—S. C. DHAR, ESQ., M.Sc.

Candidates are required to give their answers in their own words as far as practicable.

Candidates are to attempt EIGHT questions, all of which carry equal marks.

1. If $f(x)$ be any function of x with continuous and finite derivatives, prove that it can be expressed in the form

$$f(x) = f(x_0) + \frac{x-x_0}{h} \Delta f(x_0) + \dots + \frac{(x-x_0) \dots (x-x_0 - \overline{n-1}h)}{n! h^n} \Delta^n f(x_0) + \frac{(x-x_0) \dots (x-x_0 - nh)}{(n+1)!} f^{n+1}(\xi),$$

where ξ is a point comprised between the min. and the max. of

$$x_0, x_0 + nh, x$$

and where x_0 is the initial pt. and $\Delta x = h$.

2. What do you understand by factorials and factorial terms? Prove by any method

$$u_x^n = (-1)^{n+1} \left\{ \frac{\Delta^n}{1!} a^{n-1} u_x - \frac{\Delta^2 a^n}{2!} a^{n-2} u_x u_{x+1} + \dots + (-1)^{n+1} \frac{\Delta^n a^n}{n!} u_x u_{x+1} \dots u_{x+n-1} \right\},$$

where $u_x = (ax + b).$

3. Prove Herschel's Theorem

$$f(e^x) = f(1) + \infty f(1 + \Delta) \cdot o + \frac{x^2}{2!} f(1 + \Delta) \cdot o^2 + \dots \&c.$$

and deduce

$$(i) f\{(1 + \Delta)^m\} o^n = m^n f(1 + \Delta) \cdot o^n.$$

$$(ii) \left\{ f(1 + \Delta) - f\left(\frac{1}{1 + \Delta}\right) \right\} o^{2n} = 0.$$

4. Prove Stirling's Formula of Interpolation, viz.

$$u_n = u_0 + \frac{n^{(1)}}{1!} \mu \delta u_0 + \frac{n(n-1)^{(1)}}{2!} \delta^2 u_0 + \frac{(n+1)^{(3)}}{3!} \mu \delta^3 u_0 + \frac{n(n-1)^{(3)}}{4!} \delta^4 u_0 + \frac{(n+2)^{(5)}}{5!} \mu \delta^5 u_0 + \dots \&c.,$$

where

$$\mu \delta u_0, \delta^2 u_0, \mu \delta^3 u_0, \dots \text{etc.},$$

are the ordinary central differences of u_0 of first, second, third, etc. orders respectively.

5. Compute the value of $\log \sin 9^{\circ}22'$ from the following table :—

θ	$\log \sin \theta$	θ	$\log \sin \theta$
6	9.01923		
7	9.08589	10	9.23967
8	9.14356	11	9.28060
9	9.19433	12	9.31788

6. Prove by any means Laplace's Formula for mechanical quadrature and show when it is useful in computation.

7. Determine in what cases the function

$$\tan^{-1} \frac{1}{p+qx+rx^2}$$

is immediately integrable, and in such cases sum the series

$$\tan^{-1} \frac{1}{p+q+r} + \tan^{-1} \frac{1}{p+q \cdot 2+r \cdot 2^2} + \tan^{-1} \frac{1}{p+q \cdot 3+r \cdot 3^2} + \dots \&c.$$

8. Prove Montmort's Theorem regarding the summation of the power series $\sum u_n x^n$, viz.

$$\sum_{n=0}^{\infty} u_n x^n = \frac{u_1 x}{(1-x)} + \frac{\Delta u_1 \cdot x^2}{(1-x)^2} + \frac{\Delta^2 u_1 \cdot x^3}{(1-x)^3} + \dots \&c.$$

9. Find the sum of the infinite series

$$x + 4x^2 + 9x^3 + 16x^4 + \dots \&c.$$

and of the series

$$\frac{1}{8 \cdot 18} + \frac{1}{10 \cdot 21} + \frac{1}{12 \cdot 24} + \frac{1}{14 \cdot 27} + \dots \&c.$$

10. What are *factorial coefficients*? Prove that

$$C_k^{n+1} = C_{k-1}^n + n \cdot C_k^n$$

and show how to calculate the values of C_k^n for different values of n

and k . Give a table up to C_6^6 .

11. Express $x^{(-n)}$ in an infinite series in negative powers of x .

12. Discuss the convergence of

$$\sum e^{-1-\frac{1}{2}-\dots-\frac{1}{n}} / n^r$$

13. Explain the principles and advantages of the method of "central differences" and show how "central differences" may be derived from ordinary differences.

14. If $(1+x)^n = c_0 + c_1x + c_2x^2 + \dots + c_nx^n$,
show that

$$c_0c_2 + c_1c_3 + c_2c_4 + \dots + c_{n-2}c_n = \frac{2n!}{(n-2)!(n+2)!}$$

and that

$$\frac{c_0}{1} - \frac{c_1}{2} + \frac{c_2}{3} - \dots + (-1)^n \frac{c_n}{n+1} = \frac{1}{n+1}.$$

PURE MATHEMATICS.

EIGHTH PAPER.

FINITE DIFFERENCES.

SECOND PAPER.

Examiner—N. K. MAJUMDAR, ESQ., M.A.

Answer THREE from each half.

FIRST HALF.

1. Solve:—

$$(1) \quad u_{x+1}u_x + (x+2)u_{x+1} + xu_x = -2 - 2x - x^2.$$

$$(2) \quad u_x u_{x+1} + 5u_x + 6 = 0.$$

2. The equation

$$\left(\frac{\Delta y}{a-1}\right)^2 + a^{2x} \left(\frac{\Delta y}{a-1}\right) - a^{2x} y = 0$$

has $y = c a^x + c^2$ for a complete primitive. Deduce another complete primitive.

3. Write a short essay on the general theory of difference-equations of the first order, and their solutions.

4. Write a short note on the solution of the complete linear difference equation of the n^{th} order with constant coefficients.

Solve:—

$$(E-2)^3(E-1)u_x = x^2 \cdot 2^x$$

Or,

Solve the equations:—

$$\left. \begin{aligned} v_{x+1} - u_x &= (l-m)x, \\ w_{x+1} - v_x &= (m-n)x, \\ u_{x+1} - w_x &= (n-l)x. \end{aligned} \right\}$$

5. If $\pi \equiv x \frac{\Delta}{\Delta x}$, and $\rho \equiv xE$, show that

$$(1) \quad f(\pi)\rho^m = f(m)\rho^m.$$

$$(2) \quad \pi(\pi-1)(\pi-2) \dots (\pi-n+1)u = x(x+\Delta x) \dots (x+\overline{n-1}\Delta x) \left(\frac{\Delta}{\Delta x}\right)^n u.$$

SECOND HALF.

6. Solve:—

$$(1) u_{x+1, y+1} - au_{x+1, y} - bu_{x, y+1} + abu_x = c^{x+y}$$

$$(2) \Delta \frac{du_x}{dx} - \frac{du_x}{dx} - \Delta u_x + u_x = e^{nx}.$$

7. Define the algebraical inverse of a function.

If

$$\psi x \equiv (x^2 - 1)^3,$$

find all the values of the inverse of ψ . Is ψ^{-1} always convertible or commutative with ψ ?

8. What is a *derivative* function? Prove that—

(1) If two functions are inverse to, or convertible with, one another, then their corresponding derivatives are inverse or convertible.

(2) The derivatives of a periodic function are periodic functions of the same order.

Or,

Find the condition of convertibility of ax^b , and express it in the standard form of such convertible cognates.

Deduce, with the help of derivative functions or otherwise, the n^{th} successive function of ax^b ; and find the condition that it may be a periodic function of the p^{th} order.

9. Solve:—

$$(1) \phi\left(\frac{1+x}{1-x}\right) - a\phi(x) = 0$$

$$(2) \phi(x) + \frac{1}{1-x^2} \phi\sqrt{1-x^2} = 1+x^2.$$

10. Find a curve such that the normal at any point is equal to the ordinate where the normal cuts the axis of x .

Or,

11. Solve:—

$$(1) f(x) \cdot f(y) = f(x+y)$$

$$(2) f(x) + x^{2n} f\left(\frac{1}{x}\right) = x^n.$$

PURE MATHEMATICS.

SEVENTH PAPER.

VECTOR ANALYSIS AND QUATERNIONS.

FIRST PAPER.

Examiners— { S. M. GANGULY, Esq., M.Sc.
 { S. C. GHOSH, Esq., M.A.

Candidates are required to give their answers in their own words
as far as practicable.

Any SIX questions carry full marks.

1. Define a *Quaternion* and its *Conjugate*. Show that the product of two quaternions is commutative if, and only if, they are coplanar.

Prove that if p and q are any two quaternions,

$$pKq + qKp = 2S \cdot pKq = 2S \cdot qKp.$$

2. Establish the formula

$$V \cdot aV\beta\gamma = \gamma S\alpha\beta - \beta S\gamma\alpha.$$

Given that $V\alpha\beta\gamma\delta = 0$, prove that the four vectors are coplanar and show that the condition is equivalent to

$$U \frac{\alpha}{\beta} = \pm U \frac{\delta}{\gamma}.$$

Interpret this result.

3. Find the vector of the point of intersection of the line $\rho = a + \beta t$ with the plane $\rho = \gamma + \delta\tau$, where t is an arbitrary scalar, and τ an arbitrary vector subject to the condition $S\alpha\tau = 0$.

The extremity of the vector ρ is projected from the extremity of the vector a into a point on the plane $S\lambda\rho + 1 = 0$. Prove that this point lies at the extremity of the vector

$$\frac{V\lambda V a\rho + (\rho - a)}{S\lambda(a - \rho)}.$$

4. Interpret $\rho = a^{-1}\beta a$

and show that $\rho = a\beta a^{-1} = a^{-1}(S\alpha\beta - V\alpha\beta)$.

What are the relative directions of a and β if

$$K \frac{\beta}{a} = -\frac{\beta}{a} \quad ? \quad \text{and if } K \frac{\beta}{a} = \frac{\beta}{a} \quad ?$$

5. Wherein consists the difference between the two equations

$$\tau^2 \frac{\rho}{a} = 1 \quad \text{and} \quad \left(\frac{\rho}{a}\right)^2 = -1 \quad ?$$

What is the full interpretation of each, a being a given, and ρ an undetermined, vector ?

6. Show that the differential of a quaternion function of a quaternion is a linear and distributive function of the differential.

Prove that

$$dVUq = V \left(V \frac{dq}{q} \cdot Uq \right) = V \cdot Uq^{-1} V(dq \cdot q^{-1})$$

where q is any quaternion.

7. Prove that

$$da^x = dx \left(\log T_a + \frac{\pi}{2} U_a \right) a^x$$

where a is a constant vector and x a variable scalar and that

$$da^x = x S \frac{da}{a} \cdot a^x + V \frac{da}{a} \cdot V a^x$$

where x is constant and a variable.

8. Define a *linear vector function* of a vector. Show that $V_{a\rho\beta}$ is such a function.

Prove that if

$$\phi\rho = aS_{a\rho} + \beta S\beta\rho + \gamma S\gamma\rho$$

where β, γ are any three vectors, then

$$-\phi^{-1}\rho S^2 a\beta\gamma = a_1 S a_1\rho + \beta_1 S\beta_1\rho + \gamma_1 S\gamma_1\rho$$

where $a_1 = V\beta\gamma$, etc.

9. Show that the curve

$$\rho = a \cos x + \beta \sin x$$

represents an ellipse of which a and β are conjugate radii. If the ellipse is projected on a plane at right angles to the vector λ , the vectors a and β will project into the principal semi-axes of the projection provided

$$S \cdot V\lambda a V\lambda \beta = 0.$$

10. Show that the equation of a cone whose cyclic planes are

$$S_{a\rho} + 1 = 0 \text{ and } S\beta\rho + 1 = 0$$

can be written in the form

$$S_{a\rho} S\beta\rho + \rho^2 = 0.$$

Reduce the equation to the form $S_{\rho}\phi\rho = 0$ where ϕ is a self-conjugate function.

11. Eliminate ρ from the equations

$$S_{a\rho} = a, S\beta\rho = b, S\gamma\rho = c, S\delta\rho = d,$$

where a, b, γ, δ are vectors, and a, b, c, d scalars.

12. Prove that the square of the operator

$$\nabla = i \frac{d}{dx} + j \frac{d}{dy} + k \frac{d}{dz}$$

is the negative of the operator of Laplace.

Show that

$$(1) \nabla T\rho = U\rho \text{ and } (2) \nabla U\rho = -\frac{2}{T\rho},$$

ρ being the vector of any point.

13. If P and Q are scalar functions of ρ , show that

$$\nabla \cdot PQ = \nabla P \cdot Q + \nabla Q \cdot P$$

Prove that

$$\int \frac{V\rho d\rho}{T\rho^3} = - \int S dv \nabla \cdot \nabla T\rho - 1$$

where no infinities occur.

14. (1) Obtain the usual expressions for the velocity and acceleration of a moving point along the radius vector and perpendicular to the radius vector of its path.

(2) A particle describes an ellipse about the centre as a centre of force. Find the law of force.

PURE MATHEMATICS.

EIGHTH PAPER.

VECTOR ANALYSIS AND QUATERNIONS.

SECOND PAPER.

Examiner—DR. HARIDAS BAGCHI, M.A., PH.D.*Candidates are required to give their answers in their own words as far as practicable.**Six questions carry full marks.*

1. Shew that the series of quaternions q, q^2, q^3, \dots are coaxal. q and r are two quaternions satisfying the relation

$$a_1 + b_1 q + c_1 q^2 + \dots = a_2 + b_2 r + c_2 r^2 + \dots,$$

where

$$a_1, b_1, c_1, \dots, a_2, b_2, c_2, \dots$$

are scalars.

Prove that q and r have the same axes.

2. Define a linear vector function, and enunciate its fundamental properties.

Prove that

$$\phi(a) + \phi(a + \beta) + \phi(a + 2\beta) + \dots$$

to n terms

$$= \frac{n}{2} \cdot \phi[2a + (n-1)\beta],$$

where a, β are certain vectors, and ϕ denotes a linear vector function.

3. Indicate briefly any general method of solving vector equations of the first degree.

Given that the two equations

$$a S\lambda\rho + \beta S\mu\rho + \gamma S\nu\rho = 0,$$

and

$$a^{-1} S\lambda\rho + \beta^{-1} S\mu\rho + \gamma^{-1} S\nu\rho = 0,$$

have the same solution, prove that, in general, the vectors a, β, γ are parallel.

4. Discuss the nature of the locus, represented by each of the following equations:—

$$(i) S a\rho + S \beta\rho + S \gamma\rho = 0,$$

$$(ii) \frac{1}{S a\rho} + \frac{1}{S \beta\rho} + \frac{1}{S \gamma\rho} = 0.$$

5. Explain the method of calculating the maximum or minimum values of a scalar function of a variable vector.

Shew that the scalar expression

$$(\rho - a)^2 + (\rho - \beta)^2 + (\rho - \gamma)^2$$

will attain its critical value, when

$$\rho = \frac{a + \beta + \gamma}{3}$$

Interpret the result geometrically.

6. Express the differential of $S \cdot \rho \delta \rho$ in the form $2 S \cdot \rho \phi \delta \rho$ (where ϕ is a given self-conjugate function). Hence or otherwise evaluate the integral

$$\int S \cdot (\alpha S \alpha \rho + \beta S \beta \rho + \gamma S \gamma \rho) d\rho,$$

and prove that its actual value is

$$\frac{1}{2}[(S\alpha\rho)^2 + (S\beta\rho)^2 + (S\gamma\rho)^2] + \text{a scalar const.}$$

7. Obtain the equations of equilibrium of a rigid body in the usual forms

$$\Sigma \beta = 0,$$

$$\Sigma V \alpha \beta = 0,$$

where β_1, β_2, \dots are the forces acting at the extremities of the vectors $\alpha_1, \alpha_2, \dots$ respectively.

A body is under the action of the forces

$$\mu + \nu - 2\lambda, \nu + \lambda - 2\mu, \lambda + \mu - 2\nu,$$

whose points of application are the extremities of the vectors λ, μ, ν . Prove that there will be equilibrium.

8. Define a *linear homogeneous strain*, and verify that it converts planes into planes. Determine the linear strain which transforms the planes

$$S\alpha\rho=1, S\beta\rho=1, S\gamma\rho=1$$

into

$$S\alpha'\rho=1, S\beta'\rho=1, S\gamma'\rho=1$$

respectively.

9. If $\rho\phi$ denotes the vector joining the origin to a moving particle, prove that the acceleration at each instant is represented by the vector $\frac{d^2\rho}{dt^2}$, where the scalar t denotes time.

The position of a moving particle is given by

$$\rho = a \cos t + \beta \sin t + \gamma,$$

where a, β, γ are fixed unit vectors at right angles to each other. Prove that the acceleration is always perpendicular to the vector γ , and is of constant magnitude.

PURE MATHEMATICS.

SEVENTH PAPER.

PROJECTIVE GEOMETRY.

FIRST PAPER.

Examiners— { S. C. BASU, ESQ., M.A.
 { I. BRAHMACHARI, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Of the following ten questions which carry equal marks, candidates are required to answer only SIX, namely, three from each group.

GROUP A.

1. (a) Distinguish between Projective or Modern Geometry and the Geometry of the Ancients, indicating shortly the distinction between *projective* and *metric* methods of proof.

(b) Illustrate your answer by proving Pascal's Theorem in the two methods.

2. (a) Enunciate and explain the Principles of Duality and Continuity, pointing out the advantages of the application of those principles.

(b) Apply the Principle of Duality to prove the following proposition—

If two trihedral angles $\alpha'\beta'\gamma'$ and $\alpha''\beta''\gamma''$ are such that the edges $\beta'\gamma'$ and $\beta''\gamma''$, $\gamma'\alpha'$ and $\gamma''\alpha''$, $\alpha'\beta'$ and $\alpha''\beta''$ lie in three planes $\beta_0, \beta_0, \gamma_0$ which pass through the same straight line, then the straight lines $\alpha'\alpha''$, $\beta'\beta''$, $\gamma'\gamma''$ will lie in the same plane.

3. When are two figures said to be in *perspective* and when in *plane perspective*?

Shew that two triangles which are reciprocal with respect to a conic are in plane perspective.

4. Shew that if a variable polygon of an even number of sides move in such a way as to remain always inscribed in a given conic, while all its sides but one pass respectively through as many fixed points on a straight line, then the last side also will pass through a fixed point collinear with the others.

5. (a) Prove that a harmonic pencil is cut by any transversal whatever in a harmonic range, and conversely, the rays which project a harmonic range from any centre whatever, form a harmonic pencil.

(b) Shew also that every projection or section of a harmonic form is itself a harmonic form.

GROUP B.

6. (a) Shew that the anharmonic ratio of four collinear points is unaltered by any projection whatever.

(b) Shew that the anharmonic ratio of four points A^p, B', D', C' of which the third lies at infinity is $B'C' : A'C'$.

7. Prove Ceva's Theorem, namely,

If the straight lines connecting the three vertices of a triangle RSQ' with any given point T meet the respectively opposite sides in R', S', Q' , the segments which they determine on the sides will be connected by the relation

$$\frac{SR' \cdot QS' \cdot RQ'}{QR' \cdot RS' \cdot SQ'} = -1.$$

8. (a) Given five points A, B', C, A', B , on a conic, find the point of intersection of the curve with any given straight line drawn through one of those points A .

(b) Given three points A, B', C on a hyperbola, and the directions of both asymptotes, find the second point of intersection of the curve with any given straight line drawn through one of those given points A .

9. Enunciate and prove the reciprocal of Desargue's theorem, relating to a pencil of conics, and apply the proposition to establish that if a hyperbola and its asymptotes be cut by a transversal, the segments intercepted by the curve and its asymptotes respectively have the same middle point.

10. Write a short historical note on the Theory of Parallels.

Give your own view, with reasons, as to the correctness or otherwise of the Euclidean, Lobachewskian and Riemannian Theories of Parallels.

PURE MATHEMATICS.

EIGHTH PAPER.

PROJECTIVE GEOMETRY.

SECOND PAPER.

Examiners— $\left\{ \begin{array}{l} \text{S. C. DHAR, ESQ., M.Sc.} \\ \text{S. M. GANGULY, ESQ., M.Sc.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

Six questions are to be attempted, three from each half.

FIRST HALF.

1. Prove that a projectivity connecting two co-basal rows can always be expressed as the resultant of two involutions.

2. Define a cast on a conic.

Give the rules for addition and multiplication of two distinct proper casts $ABCD_1$ and $ABCD_2$ on the same conic.

3. Apply Brianchon's theorem to prove that the orthocentre of any triangle circumscribed to a parabola lies on the directrix, and from it deduce that the directrices of a range of parabolas form a flat pencil.

4. If the three sides of a variable triangle MAA' rotate about three fixed collinear points P, S', s respectively, while two vertices A and A' move upon two fixed straight lines which intersect in O , then the third vertex M will describe a straight line which also passes through O .

Prove the theorem, and show its equivalence to Desargue's theorem upon perspective triangles.

5. 'Any transversal is cut in involution by a pencil of conics.'

Give the reciprocal of the above theorem and from it deduce the focal properties of conics and their confocals.

6. Write a short note on the introduction of complex elements in the geometry of position.

SECOND HALF.

7. Give Hilbert's definition of an angle and state his axiom for congruence of angles.

Prove, on the basis of Hilbert's axioms, that all right angles are congruent to one another.

8. What are the essential conditions which a system of axioms should fulfil in order that such a system may form the logical foundation of a geometry.

How does Hilbert establish the compatibility of his five groups of axioms?

9. State Pascal's Theorem for the plane and show how Hilbert bases on it an algebra of segments and establishes the Theory of Proportion independently of the Archimedean axiom.

10. How does Hilbert define (i) two polygons of *equal area* and (ii) of *equal content*?

How does Hilbert define "*Measure of Area*" of triangles?

What do you understand by the transversal decomposition of a triangle?

If a triangle Δ is decomposed by means of *arbitrary* straight lines into a finite number of triangles Δ_k , prove that

$$M = \sum m_k,$$

where M is the measure of the area of the triangle and M_k that of the area Δ_k .

11. What are the fundamental laws of a Desarguesian number system?

Show that such a system makes possible the construction of a geometry of space in which Hilbert's axioms I, II and III are all fulfilled.

12. What do you understand by an Archimedean number system?

Prove that for such a system, the *Commutative* law of multiplication is a necessary consequence of the remaining laws of operation.

PURE MATHEMATICS.

SEVENTH PAPER.

THEORY OF NUMBERS.

FIRST PAPER.

Examiner—H. P. BANERJEE, ESQ., M.Sc.

Answer THREE from each group.

GROUP A.

1. Prove that if $a+b+c+\dots > n$, then $\frac{n!}{a! b! c! \dots}$ is an integer.

Deduce that $\frac{mn!}{(m!)^n n!}$ is an integer.

2. If d_1, d_2, d_3, \dots denote the divisors of a number N , then $\phi(d_1) + \phi(d_2) + \phi(d_3) + \dots = N$.

Show that

$$\phi(1) \frac{x}{1+x^2} - \phi(3) \frac{x^3}{1+x^6} + \phi(5) \frac{x^5}{1+x^{10}} - \dots \text{ad inf.} = \frac{x(1-x^2)}{(1+x^2)^2}.$$

3. If S denote the sum of the primitive roots of p , where $p-1 = a^{\alpha} b^{\beta} c^{\gamma} \dots l^{\lambda}$, $a, b, c, \dots l$ and p being different primes, prove that $S \equiv -1$ or $+1 \pmod{p}$ according as the number of prime factors is odd or even and none of the exponents is greater than 1.

4. The congruence $f(x) = ax^n + bx^{n-1} + \dots + l \equiv 0 \pmod{p}$ cannot have more than n incongruent roots if p is a prime number and $a \not\equiv 0 \pmod{p}$. Show that the limitation to a prime modulus is essential for this theorem.

Solve completely the congruence $x^2 - Hx + 3 \equiv 0 \pmod{12}$.

5. Give a rigorous proof of Legendre's Law of Reciprocity. Investigate whether the congruence $x^2 + 120 \equiv 0 \pmod{2707}$ is possible.

GROUP B.

6. Every prime of the form $8n+1$ or $8n+3$ can be expressed in one and only one way as the sum of a square and double a square number. Establish this.

7. If $\begin{pmatrix} \alpha & \beta \\ \gamma & \delta \end{pmatrix}$ is a proper automorph of (a, b, c) , show how to determine the values of $\alpha, \beta, \gamma, \delta$.

Indicate how to obtain all the automorphs from the fundamental one.

8. What is meant by a *reduced* point?

Prove that no two reduced points can be equivalent.

9. When two forms are both properly and improperly equivalent to each other, show that each of them is improperly equivalent to itself.

If (a, b, c) be improperly equivalent to itself, show that

$$(a, b, c) \sim (a, -b, c).$$

10. Prove that two properly equivalent forms must belong to the same period and that two reduced forms are not equivalent if they belong to different periods.

PURE MATHEMATICS.

EIGHTH PAPER.

THEORY OF NUMBERS.

SECOND PAPER.

Examiners— { RAI A. C. BOSE, BAHADUR, M.A.
M. GUPTA, ESQ., M.Sc.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Answer FOUR questions from Part I and two from Part II.

PART I.

1. If the greatest common divisor of the set of integers a, b, c, \dots is m , shew that it is always possible to determine another set x, y, z, \dots such that 5

$$ax + by + cz + \dots = m.$$

If the set of integers p_1, p_2, \dots, p_n is relatively prime to a given modulus m and q_1, q_2, \dots, q_n another set such that the expressions 10

$$p_r q_s - p_s q_r \quad \left(\begin{matrix} r=1, 2, \dots, n \\ s=1, 2, \dots, n \end{matrix} \right)$$

are all divisible by m , shew that there exists one and only one class of numbers $B \pmod{m}$ which satisfy the simultaneous congruences

$$p + B \equiv qt \pmod{m}; \quad t=1, 2, \dots, n.$$

2. Define equivalence and obtain a general criterion for the proper equivalence of two forms. 2+6

If $D = D'\sigma^2$, shew that the forms $(1, 0, -D)$, $(\sigma^2, b\sigma, b^2 - D')$ are equivalent if and only if the equation 7

$$t^2 - D'u^2 = 1$$

possesses an integral solution (t, u) which satisfies the congruence

$$t + bu \equiv 0 \pmod{\sigma}.$$

3. Explain how Gauss's theory of periods of the roots of cyclotomic equations is made use of to facilitate the algebraic solution of such equations. 10

Shew that Euclidean methods can be employed to construct regular polygons of $(2^n + 1)$ sides if $2^n + 1$ is a prime. 5

4. If g denotes a primitive root of $x^{p-1} - 1 \equiv 0 \pmod{p}$ and γ any one of the complex roots of $x^p - 1 = 0$, p being a prime, obtain the equation whose roots are 10

$$\sum_{\lambda=0}^{\frac{1}{2}(p-3)} \gamma^{g^{2\lambda}} \quad \text{and} \quad \sum_{\lambda=0}^{\frac{1}{2}(p-1)} \gamma^{g^{2\lambda+1}}$$

Work out, directly and completely, the case of $p=17$, given that 3 is a primitive root of 17. 5

5. If the expression 5

$$\sum_{s=0}^{n-1} e^{\frac{2\pi i h}{p} s^2}$$

is denoted by $\phi(h, p)$, where h is an integer and p a positive prime, prove that

$$\phi(h, p) = \left(\frac{h}{p}\right) \phi(1, p),$$

and establish Gauss's theorem:—

If n is the product of the positive odd primes a, b, c, \dots no two of which are equal, and m the number of these primes which are of the form $4k+3$, then the number of the primes a, b, c, \dots , of which 10

$$\frac{n}{a}, \frac{n}{b}, \frac{n}{c}, \dots$$

respectively are non-residues, will be

(i) even, if $m \equiv 0$ or $1 \pmod{4}$,

and (ii) odd, if $m \equiv 2$ or $3 \pmod{4}$.

6. If an odd positive integer P of the form $4h+3$ involves no square factor, and h denotes the number of properly primitive classes for the determinant $D=-P$, prove that an expression for h is given by 13

$$\sum_{m=1}^{\frac{1}{2}(P-1)} \left(\frac{m}{P}\right)$$

in which $\left(\frac{m}{P}\right)=0$, when m is not prime to P .

What conclusion do you come to from the above formula, relating to the distribution of residues and non-residues of a given prime? 2

7. If p_1, p_2, p_3, \dots denote different primes and m any integer, obtain a formula for determining the number of integers which are not greater than m and not divisible by any of the primes p_1, p_2, p_3, \dots 10

Employ your formula to determine the number of integers not greater than 1000 and not divisible by any of the primes 2, 3, 5, 7. 5

PART II.

8. If (a, b, c) be a primitive form for which 10

$$dv(a, 2b, c) = \sigma,$$

shew that it is always possible to choose two integers x and y prime to each other such that

$$\frac{ax^2 + 2bxy + cy^2}{\sigma}$$

is prime to any arbitrarily pre-assigned integer m .

If (a, b, c) has its determinant $D \equiv 3 \pmod{4}$, shew that integers prime to $2D$ and capable of primitive representation by (a, b, c) are either all quadratic residues or else all non-residues of any odd prime factor of D . 4

Calculate the generic characters of (3, 1, 12) and examine whether or not it possesses supplementary characters. 6

9. If K, K', K'' denote three classes of the same determinant, shew that the class into which they compound is independent of the order in which the successive composition is performed, i.e. shew that 10

$$(KK') K'' = (K'K'') K = (K''K) K'.$$

Prove the following:—

(i) Two opposite properly primitive classes compound into the principal class; 4

(ii) If S denotes the simplest class and K any one class of divisor σ , there exists at least one properly primitive class H such that $SH = K$. 6

10. Prove that a properly primitive ambiguous form is equivalent to one or the other of the types, 4 + 8

$$(i) (a, o, a'),$$

$$(ii) (2b, b, c);$$

and that for such a form of the type $(2b, b, c)$, the determinant D must be $\equiv 3 \pmod{4}$ or $\equiv 0 \pmod{8}$.

Also shew that the number of properly primitive ambiguous classes, when D is negative and of the form $4h + 3$, is precisely half as great as the number of assignable total characters. 8

11. Determine the total number of possible genera that is *a priori* assignable in the case of a given determinant D and shew that there actually exist only two genera when D is the product of two primes and of the form $4h + 1$. 2 + 8

Hence or otherwise deduce that

$$\left(\frac{p}{q}\right) = -\left(\frac{q}{p}\right),$$

where both p and q are primes of the form $4h + 3$. 10

MIXED MATHEMATICS.

FIRST PAPER.

Examiners— $\left\{ \begin{array}{l} \text{S. P. DAS, ESQ., M.A.} \\ \text{NIKHILRANJAN SEN, ESQ., M.A.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

Six questions to be attempted, three from the first half and three from the second half.

All questions are of equal value.

FIRST HALF.

1. Supposing the earth to be of uniform density ρ and slightly deformed from the spherical shape with $r = a + \epsilon s_n$ as the equation of the free surface: shew that the potential at any point within the spherical mass is given by

$$V = \frac{2}{3}\pi\rho(3a^2 - r^2) + \frac{3g\epsilon}{2n+1} \frac{r^n}{a^n} S_n,$$

where g is the acceleration due to gravity on the surface of the spherical earth, S_n a spherical surface harmonic of the n^{th} degree, and ϵ a small quantity whose second and higher powers may be neglected.

2. Prove that the potential at an internal point of the solid homogeneous ellipsoid

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1$$

is given by

$$\frac{V}{\pi \rho abc} = \int_0^\infty \left(1 - \frac{x^2}{a^2 + \lambda} - \frac{y^2}{b^2 + \lambda} - \frac{z^2}{c^2 + \lambda} \right) \frac{d\lambda}{\{ (\alpha^2 + \lambda)(b^2 + \lambda)(c^2 + \lambda) \}^{\frac{1}{2}}}.$$

Show that the potentials of two confocal solid homogeneous ellipsoids at any point external to both are proportional to their masses.

3. Show that the laws of the 'inverse square' and of the 'direct distance' are the only laws of force for which the external attraction of every homogeneous spherical shell is the same as that of a particle of equal mass at the centre.

If a self-attracting shell of mass M bounded by concentric spheres of radii a and b be cut by a plane through the centre, prove that the pressure between the halves is

$$\frac{3}{16} M^2 \frac{a^2 + 2ab + 3b^2}{(a^2 + ab + b^2)^2}.$$

4. Prove the principle of virtual work assuming the six fundamental equations of statical equilibrium to be true. Explain the use and the significance of Lagrange's Indeterminate Multipliers in the application of the principle of virtual work to the equilibrium of bodies under Constraints. Use the principle of virtual work to solve the following problem:—

A bead rests on a smooth wire in the form of the circle $x^2 + y^2 = a^2$, being acted on by forces λx^n and μy^n parallel to the axes. Find the position of equilibrium. Discuss the case when n is unity.

5. In the case of the equilibrium of a heavy body resting on a fixed rough surface, prove that the condition for stability is given by the inequality

$$\frac{1}{h} > \frac{1}{\rho} + \frac{1}{\rho'},$$

where ρ and ρ' are the radii of curvatures of the bodies at the point of contact and h the height of the centre of gravity of the upper body above the point of contact.

A solid hemisphere rests on a plane inclined to the horizon at an angle α , and the plane is rough enough to prevent any sliding. Find the position of equilibrium, $\sin \alpha$ being less than $\frac{3}{8}$, and show that it is stable.

SECOND HALF.

1. (a) Two screws on a cylindroid are reciprocal if they are parallel to a pair of conjugate diameters of the pitch conic. Prove this.

(b) A wrench (R, Rp) is resolved into six wrenches about six given screws, every pair of which is reciprocal. If the component wrenches are

$$(R_1, R_1 p_1), (R_2, R_2 p_2), \dots, \dots,$$

prove that

$$R^2 p = \sum R_i^2 p_i.$$

2. (a) A system of forces is given by its six components X, Y, Z, L, M, N referred to any rectangular axes with the origin O as the base of

reference. Show that whatever base is chosen and whatever the directions of the rectangular axes may be, the quantities

$$LX + MY + NZ \text{ and } X^2 + Y^2 + Z^2$$

are invariants. What would be the invariants, if the axes were oblique and the axes of the couples L, M, N coincided with the oblique axes?

(b) Find the invariant I of three wrenches whose forces are P_1, P_2 and P_3 , and couples K_1, K_2 and K_3 .

3. (a) Write a brief note on either of the following subjects:—

(i) Conditions of astatic equilibrium of a system of coplanar forces acting at given points.

(ii) Conditions satisfied by the directions and magnitudes of four forces in equilibrium.

(b) Any number of forces act along generators of the same system of a hyperboloid whose axes are

$$a, b \text{ and } c\sqrt{-1}.$$

Show that the central axis is a generator of a system of concyclic hyperboloids whose equation referred to the principal axes of the given hyperboloid is

$$\left(\frac{bc}{a} - p\right)x^2 + \left(\frac{ca}{b} - p\right)y^2 - \left(\frac{ab}{c} + p\right)z^2 = \left(\frac{bc}{a} - p\right)\left(\frac{ca}{b} - p\right)\left(\frac{ab}{c} + p\right),$$

where p is the pitch of the system of forces.

4. (a) A string rests on a rough surface under the action of any forces, and every element borders on motion; find the conditions of equilibrium.

(b) A fine string of inconsiderable weight is wound round a right circular cylinder in the form of a helix, and is acted on by two forces F, F' at its extremities. Show that, when the string borders on motion,

$$\log \frac{F'}{F} = \pm \mu \frac{\cos^2 \alpha}{a} s,$$

where s is the length of the string in contact with the cylinder, α the angle of the helix, and a the radius of the cylinder.

5. (a) Find the attraction of a uniform solid right circular cylinder at a point P on its axis.

(b) Prove that the attraction of a uniform elliptic disc at the focus is

$$\frac{2\pi m}{e} \left\{ 1 - \sqrt{1 - e^2} \right\},$$

where m is the surface density.

MIXED MATHEMATICS.

SECOND PAPER.

Examiners—{ C. V. RAMAN, ESQ., M.A.
K. KHASTGIR, ESQ., M.Sc.

All the questions are of equal value.

Candidates should attempt not more than THREE questions in the first half, and not more than THREE in the second half.

FIRST HALF.

1. Obtain the components of acceleration of a point referred to a system of curvilinear orthogonal co-ordinates, and deduce the components in the case of three-dimensional polar co-ordinates

Prove that the meridian acceleration of a point moving on the surface of the anchor ring

$$x = (c + a \sin \theta) \cos \phi,$$

$$y = (c + a \sin \theta) \sin \phi,$$

$$z = a \cos \theta,$$

is

$$a \ddot{\theta} - (c + a \sin \theta) \cos \theta \cdot \dot{\phi}^2.$$

2. A particle is constrained to slide on a curve moving in its own plane. Discuss its motion.

A fine string wound round a circle has a particle attached to its extremity, and the circle is constrained to turn in its own plane round its centre with a uniform angular velocity ω . The particle is initially in contact with the circle and has a velocity V normal to the circle. If ξ be the length of string unwound at time t , prove that

$$\xi^2 = a^2 \omega^2 t^2 + 2aVt.$$

3. One end B of a heavy uniform chain hangs over a small pulley A , and the other end is coiled up on a table at C . If B preponderate, determine the motion and tension at C .

A uniform string whose length is l and weight per unit length w , hangs over a small smooth pulley with its ends just in contact with a horizontal plane; if the string be slightly displaced, shew that when one end has risen through a height h , the pressure of the string on the plane is

$$w \left(2l \log \frac{l}{l-h} - h \right)$$

and its resultant pressure on the pulley is

$$wl \cdot \frac{l-2h}{l-h}.$$

4. A particle under gravity is projected from a given point in a given direction with a given velocity, and moves in a uniform medium whose resistance varies as the square of the velocity. Determine its motion.

In the foregoing, prove that the polar equation of the hodograph is

$$\frac{1}{r^2} = \cos^2 \theta \left(\frac{1}{V^2} + \frac{1}{U^2} \sinh^{-1} \tan \theta \right) + \frac{\sin \theta}{U^2},$$

where the origin is at the highest point, V is the horizontal velocity, U the terminal velocity, and the initial line is horizontal and θ is measured positively downwards.

5. Find the brachistochrone for a particle moving in a given field of force.

Prove that a parabola is a brachistochrone for a constant force from the focus.

SECOND HALF.

6. Discuss the stability of a central orbit when the law of force is

$$(1) m\phi(r), \text{ and } (2) \mu r^n$$

at distance r .

Two centres of force attracting inversely as the square of the distance are distant r, r' respectively from a particle moving under their influence; if θ, θ' be the angles r, r' make with the line joining the centres of force, then

$$r^2 r'^2 \frac{d\theta}{dt} \cdot \frac{d\theta'}{dt} = a \left(\mu \cos \theta + \mu' \cos \theta' + c \right),$$

μ, μ' being the absolute intensities of, and a the distance between, the centres of force, and c an absolute constant.

7. Obtain the equations of motion of a particle moving on a smooth surface of revolution, the axis of which is vertical.

A heavy particle is projected horizontally along the inner surface of a smooth sphere, with a velocity due to a fall from the centre to the point of projection. Shew that the radius of curvature of the path when it is at an angular distance θ from the lowest point of the sphere is

$$a \left(1 + \frac{\sin^2 \alpha \cos \alpha}{4 \cos^3 \theta} \right),$$

where α is the initial value of θ , and a is the radius of the sphere.

8. Find the equations of motion of a simple pendulum, taking the rotation of the earth into account.

Shew that the vertical plane in which the pendulum oscillates turns round from West to East through North with the constant angular velocity $\omega \cos \alpha$, where α is the co-latitude.

9. Establish the Lagrangian equations, for the motion of a connected system of particles.

From the Lagrangian equations, deduce the equations of motion of a particle in polar co-ordinates.

10. Investigate the small oscillations of a pendulum which is subject to resisting forces proportional to the square of the velocity.

Two particles of masses M, m are connected by a light rod of length l . The first mass is constrained to move along a fixed smooth horizontal wire, while the other is free to oscillate in the vertical plane under the action of gravity. Find the motion.

MIXED MATHEMATICS.

THIRD PAPER.

Examiners— { HON. MR. R. P. PARANJPYE, ESQ., M.A.
 { NALINIMOHAN BOSE, ESQ., M.Sc.

Candidates are required to give their answers in their own words as far as practicable.

Only THREE questions are to be attempted from EACH group.

The questions are of equal value.

GROUP A.

1. Explain what is meant by the momental ellipsoid of a body at a point.

Find the locus of points at which the momental ellipsoid for a given body degenerates to a spheroid, and the points, if such exist, at which it becomes a sphere.

2. Explain D'Alembert's principle and deduce the equations of motion of a rigid body.

A uniform rod has one extremity fastened by a pivot to the centre of a wheel which rolls on a rough horizontal plane, the other extremity resting against a smooth vertical wall at right angles to the plane containing the wheel and the rod; prove that the inclination θ of the rod to the vertical when it leaves the wall is given by the equation

$$9M \cos^3 \theta + 6m \cos \theta - 4m \cos a = 0,$$

where M and m are the masses of the wheel and rod, and a the initial inclination of the rod to the vertical, the system being supposed to start from rest.

3. A heavy body is rotating about a horizontal axis; find the reactions on the axis when the body is in any position.

A piece of wire is bent into the form of an isosceles triangle and revolves about an axis through its vertex perpendicular to its plane. Find the centre of oscillation and show that it will lie in the base when the triangle is equilateral.

4. A homogeneous sphere of radius a is placed on a rough horizontal plane and a horizontal blow is given to it, the direction of the blow intersecting the vertical diameter at a distance c below the centre. Investigate the motion fully showing that, under certain circumstances, it will pass back through its initial position, and find the time taken to reach that position.

5. Obtain Euler's geometrical equations in the case of a body moving about a point.

If a constant couple be applied about the axis of symmetry of a body supported at its centre of inertia, and initially rotating about an axis perpendicular to that of symmetry, determine the motion completely; and show that the cone described in the body by the instantaneous axis has the equation

$$\tan^{-1} \frac{x}{y} = \frac{A-C}{A} \cdot \frac{\Omega^2 C}{2N} \cdot \frac{z^2}{x^2 + y^2},$$

where N is the couple and Ω the initial angular velocity.

GROUP B.

6. Enunciate and prove Kelvin's and Bertrand's theorems on the *Vivæ* produced when a body is acted on by impulses.

Two uniform rods AB, BC of masses m, m' lie on a smooth table, inclined to one another at an angle α ; they are jointed at B , and the end A turns on a pivot fixed in the table. First show that, if a blow P be delivered at the middle of the rod AB and perpendicular thereto, the kinetic energy of the resulting motion is

$$\frac{1}{2} P^2 \left\{ \frac{1}{3} m + 4m' - 3m' \cos^2 \alpha \right\}.$$

And secondly, show that, if there be a smooth peg touching the middle of BC and on the proper side of it to give constraint, and if the same blow be struck, the kinetic energy is

$$\frac{1}{2} P^2 \left\{ \frac{1}{3} m + 4m' - \frac{4}{3} m' \cos^2 \alpha \right\}.$$

7. Obtain Lagrange's equations for finite forces.

Four equal rods of length a and mass m are freely jointed at their extremities forming a rhombus, one of whose diagonals is vertical; the ends of the horizontal diagonal are joined by an elastic string at its natural length and the system falls to a fixed horizontal plane; prove that if θ be the angle which any rod makes with the vertical at a time t after the impact

$$(1 + 3 \sin^2 \nu) \left(\frac{d\theta}{dt} \right)^2 = \frac{18gh}{a^2} \frac{\sin^2 \alpha}{1 + 3 \sin^2 \alpha} + \frac{\partial g}{\partial a} (\cos \alpha - \cos \theta) - \frac{3\lambda}{2ma} \frac{(\sin \theta + \sin \alpha)^2}{\sin \alpha},$$

where h is the height fallen through, α the initial value of θ , and λ the modulus of the string.

8. Obtain the equations of motion of a system whose position is defined by the co-ordinates q_1, q_2, \dots, q_n , which are connected by a number of relations of the form

$$f(q_1, q_2, \dots, q_n) = 0.$$

If l, m, n be the direction-cosines with respect to fixed axes of a rod moving in any manner in space, and if V be the potential energy, prove that

$$\frac{1}{l} \left(I \frac{d^2 l}{dt^2} + \frac{\partial V}{\partial l} \right) = \frac{1}{m} \left(I \frac{d^2 m}{dt^2} + \frac{\partial V}{\partial m} \right) = \frac{1}{n} \left(I \frac{d^2 n}{dt^2} + \frac{\partial V}{\partial n} \right),$$

where I is the moment of inertia of the rod about an axis through its centre perpendicular to its length.

9. A horizontal rod of mass m and length $2a$ hangs by two parallel strings each of length $2a$ attached to its ends; an angular velocity ω being suddenly communicated to it about a vertical axis through its centre, show that the initial increase of tension of either string is equal to $\frac{1}{4} m a \omega^2$.

If the initial disturbance be small, find the time of a complete oscillation.

10. Write an essay on one of the following subjects:—

- (a) Impact of two rough bodies in two dimensions.
- (b) Small oscillations and initial motion.

MIXED MATHEMATICS.

FOURTH PAPER.

Examiners— $\left\{ \begin{array}{l} \text{B. M. SEN, Esq., M.Sc.} \\ \text{A. C. SENGUPTA, Esq., M.A.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

Candidates are permitted to attempt SIX questions, THREE from each group.

All the questions are of equal value.

GROUP A.

1. At every point in a fluid the line rate of variation of the intensity of pressure in any direction is equal to the component in this direction of the external force per unit of volume of the fluid.

In a spherical envelope is a mass of gravitating gas arranged in spherical strata, of which the pressure at any point is always k times the density at the point. Prove that the equation to determine the density ρ at a distance r from the centre is

$$\frac{d}{dr} \left(\frac{r^2}{\rho} \frac{d\rho}{dr} \right) = \frac{-4\pi\gamma}{k} \cdot \rho r^2,$$

where γ is the constant of gravitation.

2. A rigid spherical shell of radius a contains a mass M of gas in which the pressure is k times the density, and the gas is repelled from a fixed external point O (distance c from the centre) with a force per unit of mass equal to $k/(\text{distance})$. Prove that the resultant pressure of the gas on the shell is

$$\frac{kM}{c} \cdot \frac{5c^2 - a^2}{5c^2 + a^2}.$$

3. Define *surface of floatation* and *surface of buoyancy*.

If a plane move so as to cut from a solid a constant volume, and if H be the centroid of the volume cut off, the tangent plane at H to the surface which is the locus of H is parallel to the cutting plane.

A parabolic lamina, bounded by a double ordinate perpendicular to the axis, floats vertex downwards in a liquid with its focus in the surface and its axis inclined at the angle

$$\tan^{-1} \frac{\sqrt{7}}{2}$$

to the vertical; prove that the density of the liquid is to that of the lamina as $216 : 11^{\frac{3}{2}}$, and that the length of the bounding ordinate is three times the latus rectum.

4. Find the condition of stability when a body, floating in a *heterogeneous* liquid, is wholly immersed.

Find the nature of the generating curve so that for the surface of revolution and for all depths of immersion in a *homogeneous* liquid the height of the metacentre above the lowest point shall be any assigned function of the coordinates of the section of floatation.

5. Determine the difference between the heights of two places by means of the barometer, applying as many corrections as you can.

If the pressure of the air varied as the $\left(1 + \frac{1}{m}\right)^{th}$ power of the density,

shew that, neglecting variations of temperature and gravity, the height of the atmosphere would be equal to $(m+1)$ times the height of the homogeneous atmosphere.

GROUP B.

6. Define the Principal Tensions at any point of a flexible membrane. Prove that for a flexible inextensible surface

$$p = \frac{t}{r} + \frac{t'}{r'}$$

with the usual notation.

A vessel is constructed of thin flexible and inextensible material, in the shape of the surface formed by the revolution of a Catenary, of which c is the parameter, about its axis. If t, t' are the principal tensions at the distance x from the axis, prove that

$$2t - t' : 2t = x/c : \sinh 2x/c,$$

the difference of pressures inside and outside being supposed constant.

7. Find the form of the surface of a liquid in a cylindrical tube.

A capillary tube in the form of a surface of revolution is partly immersed in a liquid with its axis vertical. Find the equation of the generating curve if the liquid is in equilibrium at whatever height it stands in the tube.

8. Prove that a catenoid is the only possible form of revolution of a film when the pressure is the same on both sides.

A soap-bubble is filled with a mass m of a gas whose pressure is kx (its density) at the temperature considered. The radius of the bubble is a , when it is first placed in air. The barometer then rises, the temperature remaining unaltered. Shew that radius of the bubble increases or diminishes according as the tension of the film is greater or less than $\frac{9}{8} \frac{km}{\pi a^2}$.

ishes according as the tension of the film is greater or less than $\frac{9}{8} \frac{km}{\pi a^2}$.

9. Prove that an oblate spheroid is a possible form of surface of a mass of gravitating liquid rotating uniformly about its axis in a state of relative equilibrium

Two gravitating liquids which do not mix, and whose densities are ρ, σ ($\rho > \sigma$) are enclosed in a rigid spherical envelope, and the whole rotates in relative equilibrium with a small uniform angular velocity ω about a diameter of the sphere. Shew that a possible form of the common surface of the two liquids is an oblate spheroid of ellipticity $\frac{5}{16} \frac{\omega^2}{\pi(\rho + \frac{3}{2}\sigma)}$.

10. An attracting mass of which the surface is an equipotential surface is surrounded by fluid whose attraction on itself is neglected. Prove that the pressure at any point is less than the pressure at the surface by

$$\frac{1}{4\pi\mu M} \iiint \rho R^2 dx dy dz.$$

where R is the resultant force, M the total attracting mass, μ the constant of attraction, and the integration is throughout the volume between the two surfaces of equipressure.

MIXED MATHEMATICS.

FIFTH PAPER.

Examiners— { BIRHUTIBHUSAN DATTA, ESQ., M.Sc.
 { DR. GANESH PRASAD, D.Sc.

Candidates are required to give their answers in their own words as far as practicable.

N.B.—*Attempt only THREE questions from each of the Groups (A) and (B).*

All the questions are of equal value.

GROUP A.

1. Enunciate and prove Green's theorem.

Deduce that the square of the velocity cannot be a *maximum* at a point in the interior of a fluid which is incompressible and which moves irrotationally.

2. In the case of the motion of a liquid in two dimensions, find the stream-function due to two equal sources and an equal sink midway between them.

In the region bounded by a fixed quadrantal arc and its radii, determine the motion due to a source, and an equal sink situated at the ends of one of the bounding radii.

3. Establish Lagrange's hydrodynamical equations and deduce Cauchy's symmetrical equations of the type

$$\frac{\xi}{\rho} = \frac{\xi_0}{\rho_0} \frac{\partial x}{\partial a} + \frac{\eta_0}{\rho_0} \frac{\partial x}{\partial b} + \frac{\zeta_0}{\rho_0} \frac{\partial x}{\partial c},$$

where ξ, η, ζ, ρ have their usual significance.

Hence, or otherwise, prove that the strength of a vortex is constant with regard to the time.

4. Investigate the general surface-condition for a fluid in motion.

An ellipsoidal envelope, containing an incompressible liquid, changes its form as well as its position so as to remain ellipsoidal and of constant volume: prove that the velocity potential is

$$-\frac{1}{2} \left(\frac{\dot{a}}{a} x^2 + \frac{\dot{b}}{b} y^2 + \frac{\dot{c}}{c} z^2 \right),$$

where a, b, c are the semi-axes of the ellipsoid at time t .

5. Shew how to find the motion of two solid spheres in an infinite liquid along the line joining their centres.

GROUP B.

6. For a fluid in motion, investigate the equation of continuity and the Eulerian equations.

7. An impulsive pressure equal to x^3 is applied within an infinitely thin vacuous stratum of spherical form which interrupts the continuity of an infinite mass of liquid. Find the motion of the liquid.

8. Find the motion of an infinite liquid produced by the uniform motion of a solid ellipsoid through it, parallel to a principal axis.

9. Find the stream-function due to a thin circular vortex ring in an infinite liquid.

10. Assuming that the internal potential of a homogeneous ellipsoid of density ρ and semi-axes a, b, c is

$$\pi \rho abc \left\{ \psi + \frac{x^2}{a} \frac{\partial \psi}{\partial a} + \frac{y^2}{b} \frac{\partial \psi}{\partial b} + \frac{z^2}{c} \frac{\partial \psi}{\partial c} \right\}$$

where

$$\psi = \int_0^\infty \frac{d\lambda}{(a^2 + \lambda)^{\frac{1}{2}} (b^2 + \lambda)^{\frac{1}{2}} (c^2 + \lambda)^{\frac{1}{2}}}$$

find the equations for determining the relations between the axes and the angular velocity about the least axis of Jacobi's ellipsoid.

Hence prove that this velocity depends only on the *shape* of the ellipsoid and not on its absolute size.

MIXED MATHEMATICS.

SIXTH PAPER.

Examiners— $\left\{ \begin{array}{l} \text{DR. D. N. MALLIK, B.A., SC.D.} \\ \text{DR. S. K. BANERJEE, D.Sc.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

Only SIX questions are to be attempted, THREE from each group.

The questions are of equal value.

GROUP A.

1. Prove that, neglecting atmospheric influences, the sidereal time of rising of a star whose R.A. and decl. are α, δ at a place of latitude ϕ is

$$\pi + \alpha - \cos^{-1} (\tan \phi \tan \delta).$$

Taking the horizontal refraction as $35'$ and the sun's semi-diameter as $16'$, and defining the beginning and end of daylight as the moments when the sun's upper limb appears on the horizon, show that the increase in the duration of daylight, taking account of the refraction and semi-diameter, varies from $6^m 8 \text{ sec } \phi$ at the equinoxes to

$$6^m 8 \{ \sec (\phi + w) \sec (\phi - w) \}^{\frac{1}{2}}$$

at the solstices, where w is the obliquity of the ecliptic.

2. Show that the latitude ϕ can be determined by an observation of the altitude a of the pole star which at the time of observation has an hour angle h and a polar distance p and that the formula is approximately

$$\phi = a - p \cos h + \frac{1}{2} \sin 1'' p^2 \sin^2 h \tan a$$

3. On the assumption that the $(n+1)^{\text{th}}$ power of the index of refraction of the atmosphere varies inversely as the distance from the centre of the earth, prove that the atmospheric refraction R is given by

$$R = \frac{1}{n} \left\{ z - \sin^{-1} \left(\sin z / \mu_0^n \right) \right\}.$$

Prove that the effect of refraction is to deform the circular disk of the sun or moon approximately into an ellipse.

4. Show that the effect of precession and nutation upon the R.A. and decl. of the stars during an interval t is equivalent to that produced by rotating the celestial sphere (i.e., the sphere containing the stars but not the circles of reference), about a diameter passing through the point whose longitude is zero and latitude is

$$\tan^{-1}[(pt + \Delta L) \Delta w],$$

the angle of rotation being

$$\{(pt + \Delta L)^2 + (\Delta w)^2\}^{\frac{1}{2}},$$

and its direction retrograde, where p is the constant of precession, and ΔL , Δw are the nutations in longitude and obliquity respectively.

Explain by how much the interval between two passages of a given meridian through the same star differs from a mean sidereal day on account of precession. If the colatitude of the star be less than that of the pole, show that this difference will vanish when the difference of longitudes of the pole and star is

$$\cos^{-1}[\tan(\text{colat. of star})/\tan(\text{colat. of pole})].$$

5. Prove that the equation of time is approximately

$$\frac{12}{\pi} \left\{ 2e \sin(L - \epsilon) - \tan^2 \frac{1}{2} w \sin 2L \right\} \text{ hours,}$$

where L is the mean longitude of the sun, e the eccentricity, ϵ the longitude of the perigee, and w the obliquity of the ecliptic.

Prove that, neglecting the eccentricity, the greatest value of the equation of time occurs when

$$\tan L = \sqrt{\sec w} \text{ and } \tan a = \sqrt{\cos w},$$

where a is the R.A. of the sun.

GROUP B.

6. Show that the effect of aberration is to increase the longitude λ and latitude β of a star by

$$-k \sec \beta \cos(\odot - \lambda) \text{ and } -k \sin \beta \sin(\odot - \lambda),$$

respectively, where \odot is the sun's longitude. Show that the distance between two stars (β , λ and β_0 , λ_0) is not altered by aberration if the sun's longitude \odot satisfies the equation

$$\cos \beta \sin(\odot - \lambda) + \cos \beta_0 \sin(\odot - \lambda_0) = 0.$$

7. If ζ be the real zenith distance of the moon and π_ϕ the horizontal parallax of the moon at latitude ϕ , prove that the parallactic displacement π_ζ of the moon is given by

$$\tan \pi_\zeta = \sin \pi_\phi \sin \zeta / (1 - \sin \pi_\phi \cos \zeta).$$

Hence show that

$$\pi_\zeta = \sin \pi_\phi \sin \zeta \operatorname{cosec} 1'' + \sin^2 \pi_\phi \sin 2\zeta \operatorname{cosec} 2'' + \sin^3 \pi_\phi \sin 3\zeta \operatorname{cosec} 3'' + \dots$$

8. Show how the various phases of an eclipse of the moon may be investigated by means of a quadratic equation in time of the form

$$At^2 + 2Bt + C = D^2,$$

after fully explaining the meaning of the quantities A , B , C , D .

Prove that if a particular phase of an eclipse is to occur at a given conjunction, the distance x of the centre of the shadow when the moon is passing through the node must lie within the limit

$$x < D' (\dot{\theta}^2 - 2\dot{\theta}\dot{\phi} \cos i + \dot{\rho}^2)^{\frac{1}{2}} / \dot{\phi} \sin i,$$

where D' is the distance between the centre of the moon and the centre of the shadow corresponding to the given phase, $\dot{\theta}$, $\dot{\phi}$, the angular velocities expressed in radians per hour of the sun and moon about the earth's centre and in the planes of their respective orbits, and i the inclination of the orbits.

9. Prove that at a place in latitude ϕ , the duration of twilight x can be obtained by solving the quadratic equation

$$4 \cos^2 \phi \cos^2 \delta \cdot t^2 + 4[\sin \phi \sin \delta \sin 18^\circ - \cos(\phi + \delta) \cos(\phi - \delta)]t + \sin^2 18^\circ = 0,$$

where t stands for $\sin^2 \frac{1}{2}x$, and δ is the sun's declination.

Show that twilight is shortest when the sun's declination δ satisfies the equation

$$\sin \delta = -\tan 9^\circ \sin \phi.$$

10. Assuming that the orbits of the planets are exactly circular, show that two observations of each planet and the time interval between them would suffice to determine its orbit.

If the heliocentric longitudes of the earth and a planet be L and l respectively, and they revolve in circles in coplanar orbits with radii a and b respectively, prove that with a suitable choice of units of time and distance

$$\rho^2 \frac{d\lambda}{dt} = \left(\sqrt{a} - \sqrt{b} \right) \left\{ 1 - \frac{a+b-\sqrt{ab}}{\sqrt{ab}} \cos(L-l) \right\},$$

where λ , ρ are the geocentric longitude and distance of the planet.

Hence explain the direct and retrograde motions of a planet.

11. Briefly describe the transit instrument and its errors.

If the western pivot of a transit instrument be α'' higher and β'' more to the north than the eastern, a star is unaffected whose north polar distance is

$$\text{colat.} + \tan^{-1} (\tan \alpha \operatorname{cosec} \beta).$$

MIXED MATHEMATICS.

FIRST PAPER.

ELASTICITY.

Examiner—MEGHNAD SAHA, ESQ., M.Sc.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FOUR questions from Group A, and TWO from Group B, are to be attempted.

GROUP A.

1. Show that there are certain combinations of the components of strain which are invariant with regard to an orthogonal transformation of axes about a fixed point. Deduce the expression for the strain-energy function from these invariants, supposing the medium to be isotropic. 12

2. In an electro-static system, prove that the mechanical action at any point is obtained by assuming the existence of certain stresses in Äther. 10

If R be the electrical intensity at any point, deduce that across a tube of force there is a pressure $\frac{R^2}{8\pi}$, and along the tubes of force there are tensions of the same amount. 4

3. Define 'Modulus of Elasticity.' 12

Prove the following relations :—

$$E \text{ (Young's Modulus)} = \frac{\mu(3\lambda + 2\mu)}{\lambda + \mu},$$

$$K \text{ (Modulus of compression)} = \lambda + \frac{2}{3}\mu,$$

$$\sigma \text{ (Poisson's Ratio)} = \frac{\lambda}{2(\lambda + \mu)},$$

where λ and μ have the usual significance. Prove that the strain-energy function is an essentially positive quantity.

Show that σ lies between $\frac{1}{2}$ and $\frac{1}{3}$.

4. Deduce, from the equations of elastic equilibrium written in Cartesian coordinates, the following equations in polar coordinates :— 14

$$\nabla^2 \Delta = 0, \quad \nabla^2(r\omega\gamma) = 0, \quad \mu \nabla^2(r\omega\gamma) + (\lambda + \mu)r \frac{\partial \Delta}{\partial r} - 2\mu \Delta = 0$$

If the displacements are radial, and there be no body forces, prove that $u_r = Ar + \frac{B}{r^2}$.

5. A spherical elastic ball of radius r is allowed to impinge normally on an infinite plane of perfectly rigid material with the velocity 16

7. If the plane be covered with lamp-black, prove that the ball will leave on the plane a circular patch of radius

$$a = A(mv^2)^{\frac{1}{2}} r^{\frac{1}{2}},$$

where A is a constant depending on the elastic constant of the ball.

6. A crystal has three planes of symmetry mutually at right angles. 16
Prove that the strain-energy function is of the form

$$2W = Ae^2_{xx} + Be^2_{yy} + Ce^2_{zz} + 2Fe_{yy}e_{zz} + 2Ge_{zz}e_{xx} + 2He_{xx}e_{yy} + Le^2_{yz} \\ + Me^2_{zx} + Ne^2_{xy}.$$

The crystal is subjected to a normal tension perpendicular to the plane of x . Show that the Poisson ratios for the directions of y and z are respectively

$$\frac{CH - GF}{BC - F^2}, \quad \frac{BG - HF}{BC - F^2}.$$

GROUP B.

7. Prove that the system of values

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$$u = \frac{a}{2} \frac{\partial^2 r}{\partial x \partial z}, \quad v = \frac{a}{2} \frac{\partial^2 r}{\partial y \partial z}, \quad w = \frac{1}{r} + \frac{a}{2} \frac{\partial^2 r}{\partial z^2}, \quad \text{where } a = -\frac{\lambda + \mu}{\lambda + 2\mu},$$

is a solution of the equations of equilibrium. Prove that the displacements are due to a force $4\pi\mu$ applied at the origin in the direction of the Z -axis.

$$8. \quad \text{If} \quad L = X_x u + X_y v + X_z w, \quad M = Y_x u + Y_y v + Y_z w, \quad 6$$

and

$$N = Z_x u + Z_y v + Z_z w,$$

prove that (L, M, N) behave exactly like a vector quantity.

If \bar{W} , \bar{T} denote the average values of the strain-energy function 18
and the kinetic energy over a closed unit volume, prove that

$$\bar{W} - \bar{T} = \frac{1}{2\tau} \iiint \int_{t=0}^{t=\tau} (X_\gamma u + Y_\gamma v + Z_\gamma w) dS dt \\ + \frac{1}{2\tau} \iiint \int_{t=0}^{t=\tau} \rho (Xu + Yv + Zw) d\Omega dt \\ - \iiint \left[\frac{\rho}{4} \frac{d}{dt} (u^2 + v^2 + w^2) \right]_{t=0}^{t=\tau} dx dy dz.$$

9. A rectangular plate whose faces are given by $(z = \pm h)$, is subjected 20
to the surface tractions

$$X_x = E\alpha z, \quad Y_y = E\alpha \sigma z,$$

where σ = Poisson's ratio. Find out the elastic displacements, and the distorted form of the planes which were parallel to the face.

Show also that the strain-energy function is given by

$$\frac{1}{2} z^2 E \alpha^2 (1 - \sigma^2).$$

10. Enunciate and prove Betti's reciprocal theorem.

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If
$$u_1 = \frac{1}{r} + \frac{a}{2} \frac{\partial^2 r}{\partial x^2}, \quad v_1 = \frac{a}{2} \frac{\partial^2 r}{\partial x \partial y}, \quad w_1 = \frac{a}{2} \frac{\partial^2 r}{\partial x \partial z}.$$

where

$$a = -\frac{\lambda + \mu}{\lambda + 2\mu},$$

prove from Betti's theorem that the x -components of displacement at any point due to the surface-tractions (X_ν, Y_ν, Z_ν) and body forces X, Y, Z are given by the equation

$$4\pi\mu u = \iiint \rho (Xu_1 + Yv_1 + Zw_1) d\Omega + \iint (X_\nu u_1 + Y_\nu v_1 + Z_\nu w_1) dS \\ - \iint [X_\nu^{(1)} u + Y_\nu^{(1)} v + Z_\nu^{(1)} w] dS,$$

where

$$X_\nu^{(1)}, Y_\nu^{(1)}, Z_\nu^{(1)}$$

are the surface tractions derived from the displacements (u_1, v_1, w_1) .

MIXED MATHEMATICS.

EIGHTH PAPER.

ELASTICITY.

SECOND PAPER.

Examiners— $\left\{ \begin{array}{l} \text{DR. C. E. CULLIS, M.A., PH.D.} \\ \text{SATYENDRANATH ROSE, ESQ., M.SC.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

Candidates are required to answer SIX questions only, THREE from each half.

FIRST HALF.

1. A rod of length ' l ' supported at both ends has a load W at a distance ξ from one end. Find the approximate form of the strained central line.

If δ be the deflection of the point where the weight is attached, prove that the Young's modulus

$$E = \frac{W\xi^2(l-\xi)^2}{3l\delta I},$$

where I is the Moment of Inertia of the cross-section about a line perpendicular to the plane of bending.

2. Find out the displacement formula for torsion of a cylindrical rod of any cross-section in the form

$$u = -Tyz, v = Tzx, w = T\phi;$$

Find ' ϕ ' when the cross-section is bounded by two confocal ellipses. What is the corresponding hydrodynamical analogue of the problem?

3. Solve the problem of flexure when the cross-section is an ellipse.

4. Write down the equations of equilibrium of a thin rod bent under terminal forces and couples. Clearly bring out the analogies with the kinetic problem of the motion of a top. Write down the result which corresponds to the energy integral of the kinetic analogue.

5. Prove that the greatest height ' l ' of a heavy uniform vertical rod, whose lower end is built in and which remains unbent, is given by the equation,

$$1 - \frac{1}{3 \cdot 2} \frac{Wl^2}{B} + \frac{1}{3 \cdot 6 \cdot 2 \cdot 5} \frac{W^2 l^4}{B^2} + \dots \\ + (-1)^n \frac{1}{3 \cdot 6 \dots 3n \cdot 2 \cdot 5 \dots (3n-1)} \frac{l^{2n} W^n}{B^n} + \dots = 0.$$

SECOND HALF.

6. If ' ϕ ' satisfies the equation

$$\frac{\partial^2 \phi}{\partial t^2} = c^2 \nabla^2 \phi,$$

show that the mean value of ϕ , over any spherical surface of radius ' r ' drawn round a point P as centre, satisfies the equation

$$\frac{\partial^2}{\partial \mu^2} (r\bar{\phi}) = \frac{c^2 \partial^2}{\partial \gamma^2} (r\bar{\phi}).$$

Hence deduce Poisson's solution of the original equation, viz.

$$\phi = t \bar{\phi}_0 + \frac{\partial}{\partial t} (t \bar{\phi}_0)$$

and show that the equation represents a wave travelling with the velocity ' c '.

7. In a homogeneous medium of density ρ in which the strain-energy function W is given in the form

$$W = 2(Lw_x^2 + Mw_y^2 + Nw_z^2),$$

show that the wave surface is the Wave-Surface of Fresnel

$$\frac{Lx^2}{\rho r^2 - L} + \frac{My^2}{\rho r^2 - M} + \frac{Nz^2}{\rho r^2 - N} = 0.$$

8. In the case of purely radial vibration of a sphere, complete up to the centre, prove the frequency equation

$$\frac{\tan ha}{ha} = \frac{1}{1 - \frac{1}{2} k^2 a^2}$$

where

$$h^2 = \frac{\rho p^2}{\lambda + 2\mu}, \quad k^2 = \frac{\rho p^2}{\mu}$$

p being the frequency and λ and μ the usual elastic constants.

9. In the extensional vibration of a rod, prove that

$$\frac{\partial^2 w}{\partial t^2} - \sigma^2 \kappa^2 \frac{\partial^4 w}{\partial s^2 \partial t^2} = \frac{E}{\rho} \frac{\partial^2 w}{\partial s^2}$$

where E is the Young's modulus, σ Poisson's ratio, and ρ the density of the material. Hence prove that the velocity of wave-propagation of the type

$$w = A e^{i(\gamma z + p t)}$$

is

$$v = \sqrt{\frac{E}{\rho} (1 - \frac{1}{4} \sigma^2 \gamma^2 \kappa^2)}.$$

10. Assuming that the strain-energy function of a bent plate is

$$\frac{D}{2} \left[\left(\frac{1}{R_1} + \frac{1}{R_2} \right)^2 - \frac{2(1-\sigma)}{R_1 R_2} \right]$$

per unit area, where R_1 and R_2 are the principal curvatures of the neutral plane, find the equation of motion and the boundary conditions of a Vibrating plate.

MIXED MATHEMATICS.

SEVENTH PAPER.

HIGHER PARTS OF SPHERICAL ASTRONOMY.

FIRST PAPER.

Examiner—DR. D. N. MALLIK, B.A., SC.D.

Candidates are required to give their answers in their own words as far as practicable.

Only SIX questions are to be attempted, THREE from each group.

The questions are of equal value.

GROUP A.

1. Explain how you would find the mean time at which moon culminates at a given place on a given day and its R.A. and decl. at the moment of culmination.

Assuming $\theta = nt + 2e \sin nt$, where θ is the angular displacement of the moon in its orbit which is taken to coincide with the ecliptic, show that

$$a = a_0 + (a_0 - T_0) \frac{1}{1 - a'},$$

where

$$a' = n(1 + 2e \cos nt) \cos \omega \sec^2 \delta,$$

$$a = \text{the required R.A.}$$

a_0 being the R.A. at the local sidereal time T_0 , it being understood that a_0 is a suitably approximate value of a and that t is expressed in sidereal seconds.

2. Explain the construction of a map on Mercator's system. If λ, β be the longitude and latitude of a point on the sphere, prove that the coordinates of a point on the map on this system are given by

$$x = k'\lambda, y = k' \log_e \left(\frac{\pi}{4} + \frac{\beta}{2} \right).$$

Show also that the scale in Mercator's projection is expressed by k' sec β/a and that the equation of a trace on a Mercator's chart of a great circle will always be of the form

$$2 \sin \left(\frac{x}{a} + c \right) = 2k \sinh y/a,$$

where $2\pi a$ is the length on the map of the equatorial circumference, and c, k are constants defining the great circle.

3. Two stars whose R.A. and decl. are (α, δ) and (α', δ') respectively are observed to transit over the same vertical circle the azimuth of which is unknown in the sidereal times t, t' . Prove that the azimuth A as well as the latitude ϕ of the place can be determined by means of the equations

$$\tan A = \tan \left[\frac{1}{2}(t' + t - \alpha' - \alpha) - M \right] \operatorname{cosec} \phi,$$

$$\tan \phi = \tan \delta \frac{\sin \left[\frac{1}{2}(t' + t - \alpha' - \alpha) - M \right]}{\sin \left[\frac{1}{2}(t' - t - \alpha' + \alpha) - M \right]},$$

$$\tan M = \tan \frac{1}{2}(t' - t - \alpha' + \alpha) \sin(\delta' + \delta) \operatorname{cosec}(\delta' - \delta).$$

4. Find the geocentric parallax of a star in zenith distance and azimuth when the earth is regarded as a spheroid.

Prove that

$$A' - A = \frac{m \sin A}{\sin 1''} + \frac{m^2 \sin 2A}{\sin 2''} + \frac{m^2 \sin 3A}{\sin 3''} + \text{etc.},$$

where

$$m = \sin \pi_\phi \sin(\phi - \phi') \operatorname{cosec} z,$$

A', A the apparent and true azimuths, $\phi - \phi'$ the reduction of the latitude, and z the true zenith distance.

Hence show that if the third and higher powers of the eccentricity of the earth regarded as a spheroid be neglected, parallax diminishes the moon's azimuth by

$$\frac{1}{2} e^2 \sin 2\phi \sin \pi_\phi \sin \alpha \operatorname{cosec} z.$$

5. Explain as fully as you can the method of determining longitudes by moon culminations.

GROUP B.

6. Give as complete an account as you can of the phenomena of precession and nutation from a kinematical point of view; explaining how luni-solar precession and nutation arise, and indicating how planetary precession is taken account of.

k is the angular velocity of the pole of the equator round the pole of the ecliptic, L is the longitude of the instantaneous axis of rotation of the ecliptic, and η its angular velocity. Show that these changes in the planes of reference produce annual rates of change

$$m + n \sin \alpha \tan \delta \text{ and } n \cos \alpha$$

in α, δ , the R.A. and decl. of a star, where

$$m = k \cos w - \eta \sin L \operatorname{cosec} w,$$

and

$$n = k \sin w,$$

w being the inclination of the equator to the ecliptic.

7. Obtain the differential equation of refraction

$$dR = \frac{1}{\mu} \frac{a\mu_0 \sin z}{(r^2\mu^2 - a^2\mu_0^2 \sin^2 z)^{\frac{1}{2}}} d\mu.$$

Assuming that $\frac{r}{a} = 1 + s$, where s is a small quantity, prove that an approximate integral of this differential equation can be obtained in the form

$$\sin^{-1}(\mu_0 \sin z) - z - cP \sin z \sec^3 z,$$

where c is a constant and P = the pressure of the atmosphere.

8. Show how to determine the local time at any place by observations of the equal altitudes of the sun before and after noon.

If the sidereal clock times when the sun arrives at equal altitudes on each side of the meridian are u' and u , and if the change of declination δ of the sun in the interval be $d\delta$, and the R.A. of the sun at culmination is α , show that the correction to be applied to clock time to obtain the true sidereal time is

$$\alpha - \frac{1}{2}(u' + u) - \frac{1}{2} \left(\frac{\tan \delta}{\tan \frac{1}{2}(u' - u)} - \frac{\tan \phi}{\sin \frac{1}{2}(u' - u)} \right) d\delta.$$

9. Determine the effects of aberration on the R.A. and decl. of a star, taking account of the eccentricity of the earth's orbit.

Show that the constant of aberration is

$$2\pi a \mu T(1 - e^2)^{\frac{1}{2}} \sin 1'',$$

where a , T , e are the mean distance, the periodic time, and the eccentricity of the earth's orbit, and μ the velocity of light.

10. Prove that

$$m = v + 2 \sum_{k=1}^{\infty} (-1)^k \frac{\tan^k \frac{1}{2}\phi}{k} (1 + k \cos \phi) \sin kv,$$

where m is the mean anomaly and v the true anomaly and the eccentricity $e = \sin \phi$.

Show that

$$v = m + (2e) \sin m + \frac{5}{4} e^2 \sin 2m + \dots$$

when e^3 and higher powers of e are neglected.

MIXED MATHEMATICS.

EIGHTH PAPER.

HIGHER PARTS OF SPHERICAL ASTRONOMY.

SECOND PAPER.

Examiner—DR. S. K. BANERJEE, D.Sc.*Candidates are required to give their answers in their own words as far as practicable.**Only SIX questions are to be attempted, THREE from each group.**The questions are of equal value.*

GROUP A.

1. Explain why the arithmetic mean of a series of measurements of a quantity is taken to be the most probable value of that quantity.

Assuming this to be the case, show that the probability that the error shall be between x and $x + \delta x$ is given by

$$\frac{h}{\sqrt{\pi}} e^{-h^2 x^2} dx,$$

where h is a constant which you are to specify.

If a_1, a_2, \dots be the measured values of successive quantities whose sum should be constant, w_1, w_2, \dots are the weights of these measures, explain how the most probable values of the quantities have to be determined.

2. Show that observations of the altitudes of two known stars at a known Greenwich time are sufficient to determine the latitude and longitude of the observer. Show how from these observations the position of the observer may be found graphically on a terrestrial globe.

Prove that if $\Delta h, \Delta h'$ be the errors in the observed altitudes, the errors in latitude and longitude are

$$\operatorname{cosec} (A' - A) [-\sin A' \Delta h + \sin A \Delta h'],$$

$$\sec \phi \operatorname{cosec} (A' - A) [\cos A' \Delta h - \cos A \Delta h'],$$

respectively, in which A and A' denote the azimuths of the two stars and ϕ the latitude of the place.

3. Prove that if t is the time occupied by a planet in moving from the position indicated by the radius vector r to the position indicated by the radius vector r' , and if k is the chord between the two positions, then

$$\frac{2\pi t}{P} = (\eta - \sin \eta) - (\eta' - \sin \eta'),$$

where

$$\sin \frac{1}{2}\eta = \frac{1}{2} \sqrt{\left(\frac{r+r'+k}{a}\right)}, \quad \sin \frac{1}{2}\eta' = \frac{1}{2} \sqrt{\left(\frac{r+r'-k}{a}\right)},$$

and P is the periodic time of the planet.

Show that the time spent by a comet within the earth's orbit is $\sqrt{2} (1-m)^{\frac{1}{2}} (1+2m)/3\pi$ parts of a year, where m is the perihelion distance of the comet, the unit being the earth's heliocentric distance regarded as constant. The orbit of the comet is presumed to be parabolic, and in the plane of the ecliptic.

4. Describe as fully as you can Halley's method of determining the sun's distance by the transit of Venus.

Prove that there will be a transit of Venus, provided that when the planet crosses the ecliptic, the heliocentric angular distance between the earth and Venus does not exceed $41'$. The sun's apparent angular semi-diameter is taken as $16'$, the distance of Venus from the sun as $\cdot 72$ times the earth's distance, and the inclination of its orbit to the ecliptic, $\sin^{-1} 1/17$.

5. Calculate by the method of Bessel the position of the axis of the cone of shadow at any given time during a solar eclipse and the local mean times of the commencement and ending of the eclipse.

Determine the criterion whether the solar eclipse is beginning or ending at the places lying on the intersection of the cone of shadow with the surface of the earth.

GROUP B.

6. Show that the apparent disk of a planet assumed to be a spheroid is an ellipse.

Proceed to find the apparent curve of illumination of a planet's surface as seen from the earth.

7. Prove that the effects of annual parallax in a star S which has a parallax σ on the distance D and position angle p of an adjacent S' which has no parallax are given by

$$D' = \sigma m \cos (\odot - M),$$

$$p' = \sigma m' \cos (\odot - M') \operatorname{cosec} D,$$

where \odot is the longitude of the sun and m, M and m', M' are auxiliaries which you are required to specify.

Show that the greatest variation in the apparent distance of the two stars S and S' is

$$2\sigma (\sin^2 \beta \cos^2 B + \sin^2 B)^{\frac{1}{2}},$$

where β is the latitude of S' and B is the angle which S' and either pole of the ecliptic subtends at S .

8. If (a_0, δ_0) be the coordinates of a star referred to the equator and equinox of some initial date and (α, δ) the same quantities referred to the equator and equinox of some other date, prove the following formulae of reduction

$$\alpha - a_0 = \alpha' - \alpha + \zeta_0 + z,$$

$$\tan \frac{1}{2} (\delta - \delta_0) = \cos \frac{1}{2} (\alpha' + \alpha) \sec \frac{1}{2} (\alpha' - \alpha) \tan \frac{1}{2} \theta,$$

where

$$\tan (\alpha' - \alpha) = p \sin \alpha / (1 - p \cos \alpha),$$

$$p = \sin \theta (\tan \delta_0 + \tan \frac{1}{2} \theta \cos \alpha),$$

$$\alpha = \alpha_0 + \zeta_0, \quad z = \zeta - \lambda,$$

θ is the arc joining the positions of the pole at the initial and final epochs. ζ, ζ_0 the amounts by which the angles at the two positions of the poles in the spherical triangle formed by these two poles and the pole of the initial ecliptic fall short of 90° and λ is equal to the total planetary precession on the equator of the final epoch.

9. If α, β, γ be the collimation, level and deviation errors of a transit instrument, prove that the correction t of the observed time of transit of a star whose declination is Δ is given by

$$\sin \alpha + \sin \phi \sin \beta \sin \Delta - \cos \phi \cos \beta \sin \gamma \sin \Delta$$

$$- \cos \beta \cos \gamma \cos \Delta \sin t + (\cos \phi \sin \beta + \sin \phi \cos \beta \sin \gamma) \cos \Delta \cos t = 0,$$

where ϕ is the latitude of the place.

Assuming that the errors of the instrument are small quantities, prove that, if two stars of different declinations Δ_1, Δ_2 can be found for which the three errors of adjustment produce no error in the time of transit, the correction to be added to the observed time of transit of a star of declination Δ is

$$2a \sin \frac{1}{2} (\Delta - \Delta_1) \sin \frac{1}{2} (\Delta - \Delta_2) \sec \frac{1}{2} (\Delta_1 - \Delta_2) \sec \Delta.$$

10. Obtain the formulae of the reduction of a star from its mean place at the beginning of a year to its apparent place at the end of the year in the form

$$\Delta \alpha = f + g \sin (G + \alpha) \tan \delta + h \sin (H + \alpha) \sec \delta + \mu_\alpha \tau,$$

$$\Delta \delta = g \cos (G + \alpha) + h \cos (H + \alpha) \sin \delta + i \cos \delta + \mu_\delta \tau,$$

where f, g , etc., are the independent day numbers and μ_α and μ_δ the proper motions in R.A. and decl. respectively.

MIXED MATHEMATICS.

SEVENTH PAPER.

LUNAR AND PLANETARY THEORIES.

FIRST PAPER.

Examiners— { RAI A. C. BOSE, BAHADUR, M.A.
BIBHUTIBHUSAN DATTA, ESQ., M.Sc.

Candidates are required to give their answers in their own words as far as practicable.

Answer any SIX questions.

1. Prove that in an undisturbed elliptic orbit

$$w = f - 2e \sin f + \left(\frac{3}{4}e^2 + \frac{1}{8}e^4\right) \sin 2f - \frac{1}{8}e^3 \sin 3f + \frac{5}{32}e^4 \sin 4f - \dots$$

as far as the order e^4 : where w =mean anomaly, f =true anomaly, e =eccentricity.

2. Expand the disturbing function of the moon's motion

$$R = \frac{m'}{\{(x-x')^2 + (y-y')^2 + (z-z')^2\}^{\frac{3}{2}}} - m' \frac{xx' + yy' + zz'}{r'^3}$$

in the form appropriate for Pontécoulant's theory, neglecting $a/a', e', e^2$ and γ^4 , and obtaining the result

$$R = \frac{1}{a} \left(\frac{n'}{n}\right)^2 \left\{ \frac{1}{4} + \frac{3}{4} \cos 2\xi - \frac{1}{2} e \cos \phi - \frac{3}{4} e \cos (2\xi - \rho) + \frac{3}{4} e \cos (2\xi + \phi) - \frac{3}{8} \gamma^2 \right. \\ \left. - \frac{3}{8} \gamma^2 \cos 2\xi + \frac{3}{8} \gamma^2 \cos 2\eta + \frac{3}{8} \gamma^2 \cos (2\xi - 2\eta) \right\},$$

when the symbols have their usual significance.

3. Establish Laplace's Equation for the inverse of the projection of the radius vector of the Moon on the plane of the ecliptic.

$$\frac{d^2 u_1}{dv^2} + u_1 = \frac{1}{h^2} \frac{\partial F}{\partial u_1} + \frac{s}{h^2 u_1} \frac{\partial F}{\partial s} - \frac{1}{h^2 u_1^2} \frac{\partial u_1}{\partial v} \frac{\partial F}{\partial v} - \frac{2}{h^2} \left(\frac{\partial^2 u_1}{\partial v^2} + u_1 \right) \\ \times \int \frac{\partial F}{\partial v} \frac{dv}{u_1^2}.$$

If in solving the equation we take as our first approximation

$$u_1 = a \{1 + e \cos (v - a)\},$$

we obtain at our higher approximations terms containing qv in their coefficient. How is this defect avoided by taking

$$u_1 = a \{1 + e \cos (cv - a)\}$$

as our first approximation?

Upon what principle do we approximate to the value of c ? What is its physical significance?

4. Give a brief outline of the theory of intermediate orbits in solving the lunar problem. In what way does Hill's method of choosing the intermediary differ from the classical method?

Define the instantaneous ellipse and obtain formula for calculating its eccentricity.

5. Determine, up to the second approximation, the changes in the coordinates of the Moon, so far as they depend upon the parallax of the Sun only.

6. Find Hill's equations for the motion of the Moon in the form

$$D^2(us) - 2m(uDs - sDu) + \frac{1}{2}m^2(u+s)^2 - DuDs = C$$

$$D[uDs - sDu - 2m us] + \frac{1}{2}m^2(u^2 - s^2) = 0,$$

where u, s are semi-imaginary, C is a constant, m is the ratio of the Sun's mean motion to the Moon's synodic motion, and D is a differential operator.

Explain in general terms Hill's procedure in solving these equations.

7. Investigate the change in the Moon's latitude which is due to the secular change of the plane of the ecliptic.

8. Determine, after Adams, the motions of the Moon's node in the case when the orbits of the Sun and Moon are supposed to have no eccentricities, and when their mutual inclination is supposed to be small.

9. Investigate, after Laplace, the cause of the secular acceleration of the Moon's mean motion. What is Adams' objection to it.

10. Write a short note on the Variational Curve. What is its relation with Hill's Intermediary, and how it is affected by the parallactic inequalities?

MIXED MATHEMATICS.

EIGHTH PAPER.

LUNAR AND PLANETARY THEORIES.

SECOND PAPER.

Examiner—BIBHUTIBHUSAN DATTA, ESQ., M.Sc.

Answer any six questions.

1. Prove that if n bodies are subject to no forces except their mutual attractions the sums of the products of their masses and the projections of the areas described by the corresponding radii are proportional to the time.

2. Find the expressions for the variations of the major axis and the eccentricity of a disturbed orbit in terms of the partial derivatives of the disturbing function.

3. Prove that whatever system of elements be adopted, we can always express their differential coefficients in terms of the partial differential coefficient of the disturbing function R with respect to them, multiplied by coefficients which *do not* involve time explicitly.

$$4. \text{ If } (1 + a^2 - 2a \cos \psi)^{-s} = \frac{1}{2} \sum_{-s}^{+\infty} I_s^{(i)} \cos i \psi$$

when $a < 1$, prove that

$$I_s^{(i)} = s \frac{2a I_{s+1}^{(i-1)} - (1+a^2) I_{s+1}^{(i)}}{i-s}.$$

5. Prove that the unsymmetrical part of the disturbing function of a planet does not contain any secular term.

6. Enunciate and prove, neglecting small quantities of the second and higher orders, Laplace's celebrated theorem about the stability of our solar system.

7. Explain what is long period inequality of a disturbed planet. Shew that its effect is greatest on the mean longitude of the planet.

8. Prove that if the perihelion of a planetary orbit is not fixed, it always turns in the same direction *save* an oscillation.

9. Enumerate and prove the various effects of a resisting medium upon the elliptic elements of a disturbed planetary orbit.

10. Explain the fundamental difference between the lunar and planetary theories and indicate how this renders necessary the employment of different modes of investigation.

PHYSICS.

ELECTRICITY AND MAGNETISM.

FIRST PAPER.

Examiners— $\left\{ \begin{array}{l} \text{D. B. MEEK, ESQ., M.A., B.Sc.} \\ \text{S. K. ACHARYYA, ESQ., M.Sc.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

Answer Question 1, and two others, from Group A.

Full marks—50.

GROUP A.

1. Write a full and complete note on Electric Units.
2. Define carefully Green's function and find it for a spherical conductor kept at zero potential under the influence of a positive unit charge at an external or internal point.

3. State the general problem of Electrostatics and show that if one solution can be found that solution is unique.

A conductor is formed by the outer surfaces of two equal spheres. The angle between their radii at any point on the circle of intersection is 120° . Find the capacity of the conductor.

4. Solve the problem of a point charge between two infinite conducting planes. Invert the solution and hence find the distribution on two mutually influencing spheres in contact.

Not more than THREE questions to be attempted from Group B.

GROUP B.

1. Give an account of Langevin and Weiss's theory of Magnetism with special reference to the experimental works of Curie and Honda.

Or,

Show that the potential of a given distribution of magnetism can be regarded as arising from a certain surface and volume distribution. Prove that the potential of a body uniformly magnetised with intensity I is, at any external point, the same as that due to a complex magnetic shell coinciding with the surface of the body and of strength Ix , where x is the co-ordinate measured parallel to the direction of magnetisation.

Two small magnets, fixed on a platform, float horizontally on the surface of water, one along the direction of the straight line joining their centres and the other at right angles to it. Show that there is a resulting couple acting on the platform which would rotate it continuously. Is this consistent with the principle of Conservation of Energy? If not, state how the phenomenon is to be explained.

2. Distinguish between Magnetic Induction and Magnetic Force. Show that the energy of a magnetic field can be expressed by the equation

$$W = \frac{1}{8\pi} \iiint (a^2 + \beta^2 + \gamma^2) dx dy dz.$$

A magnetic particle of moment ' m ' lies at a distance ' a ' in front of an infinite block of soft iron bounded by a plane face to which the axis of the particle is perpendicular. Find the force acting on the magnet and show that the potential energy of the system is

$$-\frac{m^2(\mu-1)}{8a^3(\mu+1)}$$

3. Explain clearly what is meant by "Specific Heat of Electricity." Give the reasoning which led Lord Kelvin to predict its existence. Give a brief account of an experimental method of measuring it.

Show how the E.M.F. of a cell may be deduced from the quantities of heat evolved in the chemical reactions that take place in the cell, and prove that the correction for the temperature variation of E.M.F. is

$$T \frac{dE}{dT}.$$

4. Discuss the method of measuring the resistance of a cell by placing it in one arm of a Wheatstone's Bridge. Prove that the total heat generated in two wires, arranged in multiple arc, is less than it would be if the current were to divide between them in any proportion other than that demanded by Ohm's Law.

The resistances of the opposite sides of a Wheatstone's Bridge are a, a' and b, b' respectively. Show that if the two diagonals which contain the battery and galvanometer are interchanged

$$\frac{E}{c} - \frac{E}{c'} = \frac{(a-a')(b-b')(G-R)}{aa' - bb'},$$

where c and c' are currents through the galvanometer in the two cases, G and R are the resistances of the galvanometer and battery conductors, and E the electromotive force of the battery.

5. An infinite conducting sheet has a source and an equal sink. Determine the current lines and lines of flow. Prove that in the case of two-dimensional flow

$$4\pi \times \text{Resistance} \times \text{Capacity} = k\rho,$$

where ρ = specific resistance of the material. Hence or otherwise, show that the resistance per unit length of a shell of conducting material bounded by two co-axial cylindrical surfaces radii 'a' and 'b' is equal to

$$\frac{\rho}{2\pi} \log \frac{b}{a}.$$

PHYSICS.

ELECTRICITY AND MAGNETISM.

SECOND PAPER.

Examiners—{ W. A. JENKINS, Esq., M.Sc.
ABINASCHANDRA SAHA, Esq., M.Sc.

Not more than FOUR questions to be attempted.

Full marks can be obtained by answering THREE fully.

GROUP A.

1. All matter is in its elementary nature reducible to the same basis. Discuss this in the light of modern knowledge, illustrating your answer by tracing the transformation products of some radioactive material.

State your ideas of the nature of the elemental constituents of matter.

2. Write a short account of the natural ionisation of the atmosphere.

3. Write short notes on *three* of the following:—

(a) Photo-electric fatigue.

(b) Asymmetry in the distribution of the velocities of the photo-electrons emitted from both sides of thin films.

(c) Emission of negative electrons from hot bodies.

(d) Lorentz's deformable electron.

4. What is the essential difference between ordinary light and X-rays?

What were the chief difficulties experienced in obtaining evidence as to the electro-magnetic nature of X-rays, and how were these overcome?

5. Describe in detail—with diagrams—how you would carry out experiments to compare the ionising powers of X-rays and the Y-rays emitted from a given sample of radioactive matter.

(The description should include the production of the 'X'-rays and the isolation of the 'Y'-rays from the α - and β -rays).

Not more than THREE questions are to be attempted.

The questions are of equal value.

GROUP B.

1. Describe, with necessary theory, a modern experimental method of determining the charge carried by an electron.

2. Write a short account of the Theory of Ionisation of Gases by Collision, and apply it to explain the Discharge of Electricity through Gases.

A difference of potential is maintained between two parallel metal plates A and B placed at a distance d apart. Negative ions are liberated from the surface of the negatively charged plate A , by the action of ultra-violet light. If n_0 be the number of negative ions set free per second, show, that the number reaching the positive plate B is $n_0 e^{ad}$, when the ionisation is supposed to be due to the collision of negative ions only.

3. Describe an experiment designed to measure the velocities of Cathode rays required to produce characteristic radiations of different substances. What result has been obtained?

State Planck's Quantum Hypothesis, and from the following data establish the relation between the quality of Nickel $K(\alpha)$ radiation, and the amount of energy concerned in its production and absorption.

Atomic weight of Nickel = 61.7.

Mass of an electron = 9×10^{-27} gm.

Wave-length of Ni $K(\alpha)$ radiation = 1.662×10^{-3} cm.

Planck's constant = 6.55×10^{-27} .

4. In a transformer the primary circuit has self-inductance L and resistance R , while those of the secondary are N and S , the coefficient of mutual induction being M . Show that the effective self-induction of the primary is

$$L - \frac{M^2 N p^2}{N^2 p^2 + S^2},$$

and find its effective resistance, where the period of the currents is $2\pi/p$.

What practical consequences in the design of transformers have been deduced?

5. (a) A charged sphere is moving through a dielectric with a uniform velocity small compared with that of light, find the total kinetic energy of the sphere.

(b) Discuss the motion of a charged particle projected with any velocity v in a magnetic field.

PHYSICS.

GENERAL PHYSICS.

Examiners—{ DR. SUDHANSUKUMAR BANERJEE, D.Sc.
SATYENDRANATH BASU, Esq., M.Sc.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Answer SIX questions, three from each half, of which Question 11 must be one.

FIRST HALF.

1. Discuss the motion of a compound pendulum, and show that the centres of suspension and oscillation are mutually convertible. 16
Prove that the time period

$$T = 2\pi \sqrt{\frac{h^2 + k^2}{gh} \left(1 + \frac{a^2}{16}\right)} \text{ nearly,}$$

where h is the distance of the centre of gravity from the point of suspension, k the radius of gyration about the parallel axis through the centre of gravity, and $2a$ the angle through which it oscillates. 16

2. Explain how Lagrange's equations may be used to determine the small oscillations of a system about its position of equilibrium. 16

Two masses m , M are connected together by a string of length b and suspended from a fixed point by means of a string of length a attached to the mass m . The whole system is slightly displaced from the equilibrium position. Find the periods of small oscillation of the system.

3. In the case of a rectangular plate bent by couples applied only at the extremities, show that the strain-energy per unit of area is 16

$$W = \frac{1}{2}D \left[\frac{1}{\rho_1^2} + \frac{1}{\rho_2^2} + \frac{2\sigma}{\rho_1\rho_2} \right],$$

where ρ_1 and ρ_2 are the principal radii of curvature of the neutral plane, D the flexural rigidity, and σ the Poisson's ratio.

4. A wire is twisted by terminal couples round the axis: show that 16

$$u = -\tau yz, \quad v = \tau zx, \quad w = \tau \phi.$$

Find ϕ , when the cross-section is an ellipse, and also calculate the twisting couple.

5. Obtain the equations of motion of an incompressible homogeneous liquid, and show that in the case of steady motion 16

$$\frac{p}{\rho} + \frac{1}{2}q^2 + V = \text{const.},$$

where q is the velocity and V the potential of the extraneous forces. Hence explain the working of a common water pump.

6. In a canal of uniform depth h with parallel vertical sides, show that long waves will travel with velocity \sqrt{gh} . 16

SECOND HALF.

7. Find the magnitude and direction of attraction at any point, 16
of an uniform finite rod, attracting according to Newton's law.
Show that the level surfaces are obtained by rotating confocal ellipses
round the rod as axis.

8. In an experiment made to determine viscosity by Searle's 16
Viscometer, the following observations were recorded:—

Radius of the outer cylinder = 2.543 cm.

Radius of the inner cylinder = 1.865 cm.

Effective diameter of the drum = 1.91 cm.

Mass of each pan = 10 gms.

Load on each pan.	Time of one revolution.	Length in liquid in cm.
30	27.9	1.30
40	33.3	2.35
60	29.9	3.40
80	27.3	4.30
90	29.5	5.30

Calculate the viscosity of the substance.

9. Write a short note on Laplace's theory of capillarity. 16

10. Discuss the stability of a cylindrical film. 16

11. Write a short essay on any one of the following subjects:— 20

(a) The accurate determination of g at various points on the
surface of the earth.

(b) Brownian movement.

(c) Various methods of determining the Avagadro number.

PHYSICS.

SOUND.

Examiners— { J. C. MUKHERJEE, ESQ., M.A.
C. C. BHATTACHARYYA, ESQ., M.A.

Candidates are required to give their answers in their own words
as far as practicable.

The figures in the margin indicate full marks.

Answer SIX questions, three from each half.

Question 12 must be one.

FIRST HALF.

1. Expand $y=f(x)$ in sine series, when 16

$$f(x) = x \text{ from } x=0 \text{ to } x=\frac{\pi}{2},$$

and $f(x) = \pi - x \text{ from } x = \frac{\pi}{2} \text{ to } x = \pi,$

and show that the series curve will approach $y=f(x)$ closer and closer
by taking a greater number of terms in the expansion.

2. If a point in a sitar string, whose distance from one end is $\frac{1}{n}$ th 16

of the length of the string, is drawn aside by the player's finger to a distance b from its position of equilibrium and then released, show that the form of the vibrating string at any instant is given by the equation

$$y = \frac{2bn^2}{(n-1)\pi^2} \sum_{m=1}^{m=\infty} \left(\frac{1}{m^2} \sin \frac{m\pi}{n} \sin \frac{m\pi x}{l} \cos \frac{m\pi at}{\tau} \right).$$

Show from this that all the harmonics of the fundamental note of the string which correspond to forms of vibration having nodes at the plucked point will be absent in the complex note actually sounded.

3. A string having its extremities fixed is vibrating transversely 16
in a period p . If a small mass be attached to a point distant l_1, l_2
from the ends, prove that the period is increased in the ratio

$$1 + \frac{\sigma \sin^2 \frac{2\pi l_1}{pa}}{pa} : 1,$$

where σ is the ratio of the mass attached to the mass of the string and a is the velocity.

4. Establish the equation of vibration of a bar vibrating laterally, 16
and find out the forms of the normal functions in the case of a free-free bar.

5. Investigate the case of a uniform circular ring vibrating in its 16
own plane, and show that

$$n^2 = \frac{s^2 (s^2 - 1)^2}{s^2 + 1} \cdot \frac{Ek^2}{\rho a^4}.$$

6. Form the dynamical equation of a vibrating membrane and as- 16
certain the normal modes of a square membrane.

SECOND HALF.

7. Give the theory underlying the production of Kundt's dust 16
figures, and explain the occurrence of striations in them.

8. Describe and explain Lord Rayleigh's method for determining 16
the minimum amplitude audible.

9. "A self-maintaining stationary aerial wave is an impossibility 16
whatever may be the velocity of the general current, or in other
words, a wave cannot be propagated relatively to the undisturbed
parts of the gas without undergoing an alteration of type." Discuss
the above statement.

10. 'Two simple vibrations of sufficient amplitude may give rise 16
not only to the corresponding pure tones, but to their octaves, as
well as to certain combination-tones.' Justify the above statement.

11. Classify the common musical instruments and investigate into 16
their peculiar modes of production and musical qualities.

12. Write an essay on any one of the following subjects:— 20

(1) Maintenance of vibration.

(2) Human ear.

(3) Tempered intonation.

(4) Composition of vowel tones with special reference to Bengali
vowels.

PHYSICS.

LIGHT.

FIRST PAPER.

Examiners—{ PHANINDRANATH GHOSH, ESQ., M.A.
P. MAHALANOBIS, ESQ., B.A.

Candidates are required to give their answers in their own words as far as practicable.

Only THREE questions need be attempted.

Questions carry equal marks.

FIRST HALF.

1. "In a prism spectrometer, the image of the slit may appear infinitely broad or infinitely narrow and may have any apparent breadth between the two extremes, depending on the value of the angle of incidence."

Explain this statement.

2. In the case of an ideal optical imagery due to coaxial optical system, the lateral, axial and angular magnifications are denoted by Y , X , Z respectively.

Determine their values and show that

$$\frac{Y}{XZ} = 1$$

and that Y and Z may have any value between $-\infty$ to $+\infty$, whereas X varies from 0 to ∞ .

3. Two paraxial rays from two axial points passing through a centered system of refractive media, bounded by spherical surfaces, strike the surfaces at the heights

$$h_1, \bar{h}_1, h_2, \bar{h}_2, \dots, h_n, \bar{h}_n$$

Show that:—

$$h_1 \bar{h}_1 (J_1 - \bar{J}_1) = h_2 \bar{h}_2 (J_2 - \bar{J}_2) = \dots h_n \bar{h}_n (J_n - \bar{J}_n),$$

where J 's are the zero invariants.

4. Show that a plano-convex lens is strongly under-corrected when the plane face is turned towards the object at infinity but only feebly under-corrected when the convex face is turned towards it.

5. Discuss the importance of the term "Numerical Aperture" in connection with modern microscopes, and determine the condition under which a finely periodic structure is correctly seen through a microscope.

6. A right-angled flint glass prism of refractive index n_2 is cemented to a crown glass one of refractive index n_1 and refracting angle i_1 to produce a direct vision combination, the rays coming out of the flint prism normally.

Show that the dispersion of the system is given by

$$-\frac{dn_1}{n_2} \cdot \frac{\sin i_1}{\cos a_1' \cos a_2'} - \frac{dn_2}{n_2} \tan (a_1 - i_1),$$

where a_1 and a_2' are the angles of incidence and emergence from the crown glass prism.

Not more than THREE questions to be attempted.

The essay is equivalent to TWO questions.

SECOND HALF.

1. A large plano-convex searchlight condenser is fixed with its plane face vertical. It is 20" (twenty inches) in diameter and is 5" (five inches) thick at its widest part.

It is required to project an *oblique* beam of light downwards at an angle of about 60° (sixty degrees) with the vertical. Find the best position for a small arc lamp [$\mu=1.5$].

2. Write a short note on the maximum velocity of light and its implications in Physics.

3. Two similar non-telescopic optical systems of focal length 10" (ten inches) are placed with a distance " d " inches between *adjacent* focal points. An object 2" (two inches) high is placed at a distance of 20" (twenty inches) from an *outer* focal point.

Plot a curve showing the relation between magnification and d , the distance between adjacent focal points. Find the size of the image when d is zero.

4. A photographic objective of equivalent focal length 11" (eleven inches) is made up of two components of focal lengths 17" (seventeen inches) and 21" (twenty-one inches) respectively.

Where would you place a diaphragm in between the lenses in order to get images free from distortion?

What is the best position for the stop, when both components have the same focal length of 20" (twenty inches)? What are the special advantages in having such similar components?

5. Write an essay on *one* of the following subjects:—

(i) X-rays and Light.

(ii) The fundamental assumptions of geometrical optics.

PHYSICS.

LIGHT.

SECOND PAPER.

Examiners—{ S. K. MITRA, ESQ., M.Sc.
D. K. MAJUMDAR, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Only SIX questions, three from each half, are to be attempted.

Essays will be counted as two questions.

The same value is attached to each question.

FIRST HALF.

1. Distinguish between the Fresnel and Fraunhofer class of diffraction phenomena. Describe some experimental arrangement by means of which the two classes of diffraction can be conveniently studied.

Plane waves of light are incident on a narrow slit; discuss briefly the diffraction pattern at a great distance behind the slit. If instead of a single slit two parallel narrow slits are used, the distance between them being equal to four times the width of each, show by drawing on a graph paper the general nature of the illumination-curve (Fraunhofer class).

2. (a) Draw figures to show the nature of the wave-surface in a biaxial crystal. Distinguish between the axes of single ray velocity and single wave velocity. With which of these two do the optic axes coincide?

(b) Show by means of a diagram the position of these axes in a crystal with reference to the wave-surface, and find out the angle between the axes of single-ray velocity in terms of the principal velocities.

3. (a) How can you find out the temperature of the Sun by observing the spectral distribution of energy in sunlight?

(b) What is Balmer series? How can it be explained by Bohr's atomic model? Name two other series which confirm Bohr's theory.

4. Obtain expressions connecting the refractive index, absorption index and wave length in any medium. How are the relations simplified in the case of a transparent medium?

5. Write an *essay* on the development of the theory of Relativity.

SECOND HALF.

6. Characterise the several methods of measuring the velocity of light. What evidence is there that light is propagated across interstellar space without dispersion?

The ratio of the refractive index of Carbon bisulphide to that of air = 1.785, as calculated from measurements of velocity and 1.64 as directly found. How would you explain the discrepancy?

7. In observing Newton's rings we use a microscope, while we use a telescope for Michelson fringes. Why? Give reasons for your answer and obtain an expression for the position of the fringes.

8. Give the theory of the Echelon grating and find an expression for its resolving power. What are the special uses it has been put to?

9. Give Fresnel's explanation of the rotation of the plane of polarisation in a magnetic field. What experimental evidence is there of the truth of his theory?

10. Write an *essay* on any one of the following subjects:—

- (a) Interference methods of Spectroscopy.
- (b) Recent works on magneto-optics.

PHYSICS.

HEAT.

FIRST PAPER.

Examiners— { S. N. MAITRA, ESQ., M.A.
C. V. RAMAN, ESQ., M.A.

Answer not more than THREE questions in Part I and not more than THREE in Part II.

Question 10 counts as two questions.

All other questions are of equal value.

PART I.

1. Describe and discuss the continuous flow method of finding the mechanical equivalent of heat.
2. Give an account of what is known regarding the thermal dilatation of crystals.
3. Establish the equation for the linear propagation of heat along a bar heated at one end, and show how if the heating be periodic, the conductivity of the bar may be determined.
4. Explain the methods adopted for the production of very low temperatures.
5. Find the relation between the viscosity of a gas and the mean free path of a molecule on the kinetic theory. How is the viscosity related to the thermal conductivity?

PART II.

6. Give an account of the methods used and the results obtained in the determination of the solar radiation constant.
7. Deduce Stefan's law for total radiation from thermodynamic considerations and describe any experimental investigation by which it has been confirmed.
8. Give an account of the phenomena of the convection of heat, with special reference to recent investigations on the subject.
9. Describe the principal methods adopted for the determination of vapour densities.
10. Write an essay on *one* of the following subjects:—
 - (a) Theoretical deduction of the law of distribution of energy in the spectrum of thermal radiation.
 - (b) Specific Heats of Bodies at low temperatures.

PHYSICS.

HEAT.

SECOND PAPER.

Examiners— { MEGHNAD SAHA, ESQ., M.Sc.
 { DR. D. N. MALLIK, B.A., Sc.D.

Candidates are required to give their answers in their own words as far as practicable.

Answer THREE questions from each half.

The essay counts as two questions.

FIRST HALF.

1. Establish from thermodynamical principles the Clausius-Clapeyron relation

$$\frac{L}{\theta(v_1 - v_2)} = \frac{\partial p}{\partial \theta}.$$

Latent heat of ice at 0° is 80 calories and the density of ice is .916. What must be the external pressure in order that ice may melt at -1°C ?

(L = latent heat, v_1, v_2 the specific volumes of water and ice, θ = absolute temperature).

2. Prove that

$$C_p - C_v = -\theta \left(\frac{\partial p}{\partial V} \right)_\theta \left(\frac{\partial V}{\partial \theta} \right)_p$$

Calculate the specific heat at constant volume of mercury from the following data:—

$C_p = .0333$, coefficient of cubical expansion of mercury $= 1.81 \times 10^{-4}$; Decrement of volume for an external pressure of 1000 atmospheres $= 3.9 \times 10^{-3}$ of the original volume.

3. Prove that the thermodynamic scale of temperature is coincident with the scale of the perfect gas thermometer. How would you calculate the temperature of melting ice on the absolute scale?

The coefficient of expansion of CO_2 at N.T.P. is 3.71×10^{-3} , and the Joule-Thomson cooling effect at the temperature of melting-ice 1.005 degrees C per pressure difference of one atmosphere. Calculate the temperature of melting ice on the absolute scale.

4. Show how from observations of the specific heats, we can determine the atomic weight of an unknown elementary gas. How far would the inference be conclusive?

Deduce the law of Dulong and Petit from the kinetic theory. Is it rigorously obeyed in all cases? If not, assign reasons for discrepancy.

5. Using the Van der Waal's equation

$$p = \frac{R\theta}{v-b} - \frac{a}{v^2},$$

find the values of the critical volume, pressure, and temperature in terms of the coefficients. Explain the physical significance of 'a' and 'b,' and describe methods of determining them experimentally.

SECOND HALF.

6. Find an expression for the pressure of radiant energy from thermodynamical principles. Give an account of any experimental work for verifying the existence of the pressure.

7. What is meant by the black-body temperature of an incandescent solid? What are the principles by which the black-body temperature can be determined? Describe an apparatus by means of which the black-body temperature of a furnace can be determined.

8. Answer any two of the following with adequate reasons:—

(a) By analysing the continuous spectrum from a black-body, it is found that the maximum emission of energy takes place at the wave-length $\lambda = 1.2\mu$; what is the temperature of the body?

(b) Dry saturated steam is confined within a heated chamber under a pressure of 5 atmospheres. What would take place if the chamber be suddenly opened?

(c) Water under 4°C is confined within a piezometer under a high pressure. Suppose the pressure to be suddenly removed. Do you expect a cooling or a heating effect?

(d) A system oscillating horizontally is successively suspended within different closed vessels (the sizes of which are large compared with that of the oscillating body), containing air at pressures of $(1 \times 10^{-3} \text{ mm.}, 1 \text{ atmosphere, } 100 \text{ atmospheres})$. How would the logarithmic decrement of amplitude vary?

9 and 10. Write an essay on any one of the following subjects:—

(i) The Second Law of Thermodynamics.

(ii) The determination of the Avogadro number N .

GENERAL PHYSICS AND SOUND—PRACTICAL.

1. Find the temperature coefficient of the surface tension of the given liquid.

2. Determine the viscosity of the given liquid by Searle's Viscometer.

3. Find the coefficient of restitution of the material of the given pair of balls by photographic method.

4. Determine the pitch of the given inaudible note by sensitive flame.

5. Find the temperature coefficient of the pitch of the given tuning fork.

6. Find the time-period of the vibrator of the Induction coil by Stroboscopic method.

7. Photograph the vibration of the bowed string and verify Helmholtz's velocity law. (Two days).

CHEMISTRY.

PHYSICAL—GENERAL.

Examiner—J. BHADURI, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Not more than FIVE questions to be attempted.

1. Discuss thoroughly the principles underlying the methods of Claude and Linde for manufacturing liquid air. How is Hydrogen liquefied by the Linde process? 20

2. Describe Clement and Desormes's method of determining the ratio of specific heats of gases. Give the theory of the method. Indicate other ways of finding out the same ratio and point out the importance of this ratio in ascertaining the complexity or otherwise of gaseous molecules. 20

3. Deduce the relation between the molecular heat of evaporation of a liquid and its vapour pressure at different temperatures. 20

The vapour pressure of water at 99.5°C is 746.52 mm. and at 100.5°C is 773.69 mm. The specific volume of water vapour amounts to 1.674 litres at 100°C . Calculate the latent heat of vaporisation of water.

4. Describe the experiments of Lemoine and Bodenstein on the formation of Hydrogen Iodide from Hydrogen and Iodine. How do you account for the phenomena that up to 320°C , rise of temperature favours the production of Hydrogen Iodide, while above that temperature the amount of Hydrogen Iodide formed decreases? 20

5. What are liquid crystals? 20

Describe their properties and give an account of the theories which explain their behaviour.

6. Deduce the phase rule. 20

Discuss the changes in the system CaCl_2 and H_2O or FeCl_3 and H_2O produced by changes in concentration and temperature.

7. Explain why ions move with a constant velocity in a solution of electrolyte under a given potential gradient. Describe how Hittorf's determination of transport numbers and Kohlrausch's determination of molecular conductivity can be utilised for calculating the absolute velocity of ions. 20

8. Describe thoroughly the properties of Radium Emanation. Describe briefly some experiments which enable us to identify the short-lived products of Niton, viz. Ra A, Ra B, Ra C. 20

9. What do you understand by colloidal solutions? Give two methods of preparing colloidal platinum in water. Describe its properties. 20

CHEMISTRY.

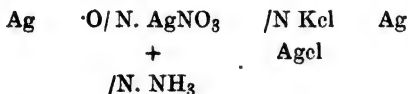
PHYSICAL—SPECIAL.

*Examiner—J. BHADURI, Esq., M.A.**Candidates are required to give their answers in their own words as far as practicable.**The figures in the margin indicate full marks.**Not more than FOUR questions to be attempted.*

1. Deduce a general equation connecting Osmotic work and lowering of vapour-pressure by means of an isothermal cycle, assuming that the vapour behaves as a perfect gas. Under what assumptions does Van't Hoff's extension of the laws of perfect gases to solutions hold good? 25

2. How would you proceed to determine the composition of the ion $\text{Ag}(\text{NH}_3)_2^+$ formed by adding a solution of ammonia to silver-chloride? 25

Calculate the E.M.F. of the cell



at 25°C, where the solubility of AgCl in pure water is 1.4×10^{-5} gm. molecules per litre, and

$$K = \frac{[\text{Ag}] [\text{NH}_3]^2}{[\text{Ag}(\text{NH}_3)_2]} = 5.4 \times 10^{-8}$$

$R = 83.2 \times 10^6$ ergs; charge carried by 1 gr. equivalent = 9654 C.G.S. units; volt = 10^8 C.G.S. units. [Neglect the liquid potential difference.]

3. How would you determine the order of a reaction? How far does the velocity determination elucidate the mechanism of a reaction? 25

4. Discuss briefly two exact methods of determining Avogadro's Number. 25

5. Discuss the assumptions made by Van der Waals in deducing his Equation of State. Describe how far it agrees with the actual behaviour of gases as regards variation of pressure and temperature. 25

6. How do you account for the variation of specific heats of solids with temperature, especially in regions of low temperature?

7. Discuss fully the physico-chemical principles involved in Haber's process for fixation of Nitrogen. 25

CHEMISTRY.

INORGANIC—GENERAL.

Examiner.—SIR P. C. RAY, Kt., D.Sc., Ph.D., F.C.S.

Candidates are required to give their answers in their own words as far as practicable.

Only SIX questions to be attempted, not more than two from each group.

Each question carries the same number of marks.

GROUP A.

1. What are the main objections to the Periodic Classification, and how are they met?

Discuss the isomorphous relationships obtaining between similar Compounds of the elements occurring in the same groups of the Periodic Classification.

2. Describe how liquid air is manufactured. How has its discovery contributed to the future development of chemical research pure and industrial?

3. Give as full an account as you can of the life and work of either (i) Sir William Ramsay or (ii) Henri Moissan.

GROUP B.

4. Describe the more recent improvements introduced in the Sulphuric Acid manufacture by the Lead Chamber Process. Discuss the theories of the reactions involved.

5. Give an account of the preparation of the oxyacids of chlorine. Arrange them in the order of their oxidising powers, stating fully the reasons for it. To what uses are their salts put in industry?

6. How are the various compounds of nitrogen and hydrogen prepared? Compare their behaviours and discuss their constitution.

7. Compare the physical and chemical properties of the elements, sulphur, selenium, tellurium and their hydrides, oxides, and oxyacids. Discuss the position of these elements in the Periodic Table.

GROUP C.

8. How is bleaching powder manufactured on an industrial scale? Discuss its constitution. How would you estimate the quantity of chlorine available for oxidation, in a given sample of the substance?

9. Describe the chief methods of extracting gold as adopted in India and outside, explaining fully the chemistry involved in and the reasons for adopting each of the steps in the process.

10. Starting from pyrolusite, how would you prepare the various oxides and oxyacids of manganese?

Discuss fully the use of potassium permanganate as a reagent in chemical analysis.

CHEMISTRY.

INORGANIC—SPECIAL.

Examiner—SIR P. C. RAY, K.T., C.I.E., PH.D., F.C.S.

Candidates are required to give their answers in their own words as far as practicable.

Only FIVE questions to be attempted.

Each question carries the same number of marks.

1. Give a brief account of the various modern methods of Steel production, discussing the comparative merits of each. Enumerate the various kinds of steel prepared in industry, and mention their uses.

2. Classify the Cabaltammines. Summarise the work done to elucidate their constitution. Give the theories put forth to account for their structure.

3. Explain why it is not possible to prepare hydriodic acid above a certain strength by the action of sulphureted hydrogen on iodine in presence of water. How would you prepare pure hydriodic acid of a maximum concentration? Write what you know about the dissociation of gaseous hydriodic acid.

4. How are nitrites and nitrates prepared on an industrial scale with the help of electricity? Give a detailed account of their manufacture and forecast the future of the industry.

5. How would you separate Platinum and the allied metals of that group?

6. Write an essay on any one of the following industries:—

(i) glass, (ii) porcelain, (iii) alkali.

7. Discuss the phenomenon of Catalysis. Describe fully two well-known instances where the success of an industry depends upon the use of the Catalysts.

CHEMISTRY.

ORGANIC—GENERAL.

Examiner—DR. P. C. MITTER, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

Only SIX questions may be attempted.

The questions carry equal number of marks.

1. A compound has the following percentage composition:—

C=81.55, H=4.8, N=13.6.

Its vapour density is 51.15.

It evolves ammonia on boiling with KOH. The original substance on reduction with sodium and alcohol forms a base which reacts with nitrous acid giving off nitrogen and yielding an alcohol. The alcohol can be oxidised to benzoic acid. What is the original substance?

2. Give an account of the preparation, properties and general reactions of the acetylenes.

3. Describe the various methods by which mono-saccharoses can be synthesised. Explain how the constitution of galactose or mannose has been arrived at.

4. Give practical details for the preparation of the following:—

Phenyl Azoimide, Cyclohexanol, Triphenyl Carbinol, Phenacetin, Isonitroso-camphor, Glycocoll.

5. State briefly the principal methods of preparation, properties and chemical reactions of the mono-amido-phenols.

6. Discuss fully the constitution of camphor or pinene.

7. Discuss fully the Hantzsch-Werner hypothesis and its application to the determination of the configurations of the oximes.

8. Describe any *one* method for preparing *each* of the following types of compounds:—Pyrazols, furanes, xanthenes, pyrrolidines, indols, phenazines.

9. Write a short essay on Thiele's Theory of partial valencies.

.CHEMISTRY.

ORGANIC—SPECIAL.

Examiner—DR. P. C. MITTER, M.A., PH.D.

*Candidates are required to give their answers in their own words
as far as practicable.*

Only SIX questions may be attempted.

The questions carry equal number of marks.

1. Give a short historical review of the rise and development of the coal-tar colour industry.

2. Give a short account of the methods of preparation, properties and the important chemical reactions of the *di-ketones*.

3. Enumerate, with examples, the various types of condensation which have been brought about by the following reagents:—

(a) Sodium ethoxide, (b) aluminium chloride, (c) sulphuric acid.

4. How are the following substances prepared, and what are their uses:—

Amidol, Ionone, Thio-indigo, β -Eucaine, Veronal, Michler's Ketone.

5. Describe the synthesis of any two of the following substances:—

(a) Terpenylic acid, (b) terebic acid, (c) camphoronic acid.

Point out the importance of a correct knowledge of their structure for determining the constitution of the terpenes.

6. Discuss the influence of the (a) nature, (b) number, and (c) position of the (1) chromophores and (2) the auxochromes on the colour of organic compounds.

7. Describe how you would synthesise (1) theophylline, (2) caffeine, (3) guanine, and (4) adenine, starting from uric acid.

8. Give an account of our present knowledge about the relationship between chemical constitution and physiological action of organic compounds.

9. Give a brief résumé of the different methods which are available for determining the constitutions of the natural alkaloids.

Establish the constitutional formula of either piperine or papaverine.

BOTANY.

FIRST PAPER.

Examiners—{ DR. P. BRÜHL, D.Sc., I.S.O., F.C.S., F.G.S.
S. C. BANERJEE, Esq., M.A.

Candidates are required to give their answers in their own words
as far as practicable.

The questions carry equal marks.

1. Give a general account of floral phyllotaxy and its relation to the phyllotaxy of foliage-leaves. Describe the floral phyllotaxy of *Nymphaea alba* Linn., and of *Gynandropsis pentaphylla* DC. What conclusions do you draw from the two cases as regards the morphological nature of flowers?

2. "Three generations are represented in a seed." Explain this statement and illustrate it by histological diagrams.

3. Classify hydathodes and give an account of their structure and functions.

Or,

Give a general account of the external outlets of the ventilating system in phanerogams and a more detailed account of the histology of one of the several types of pneumathodes.

4. What do you understand by "Storeys of Vegetation" in a forest? How many storeys of vegetation may be found in the undergrowth of a tropical rain-forest? Characterize each of them.

Or,

Give an account of lianes and epiphytes as constituents of tropical rain-forests.

5. Write notes on the fixing, dehydrating, and clearing of microscopic sections.

Or,

Describe in detail how you would proceed to study the floral development and the spermatogenesis of a Composita, such as *Grangea maderaspatana* Poir., or *Launea asplenifolia* DC.

BOTANY.

SECOND PAPER.

Examiners—{ DR. P. BRÜHL, D.Sc., I.S.O., F.C.S., F.G.S.
J. C. NAG, Esq., B.Sc.

Candidates are required to give their answers in their own words
as far as practicable.

The questions carry equal marks.

1. Compare the fructification of the different groups of Ascomycetes, and give an account of the formation of the different kinds of spores in Pucciniaceae.

Or,

Give an account of the life-history and cytology of the Cyanophyceae.

2. Give a detailed account of the development of the embryo in *Anthoceras* and in *Sphagnum*.

Or,

Compare the development of the sporogonous tissue in *Lycopodiaceae* and *Isoetaceae*.

3. "The endosperm of Gymnosperms seems to be clearly the vegetative tissue of the female gametophyte, but the morphological nature of the endosperm of the Angiosperms is not so clear." Discuss this statement.

Or,

Give an account of the history of the female gametophyte of Angiosperms from the megaspore to the completion of the egg-apparatus.

4. Take up one of the following:—

(a) Arrange the orders of Monocotyledons in the form of a table, grouping them into subclasses and cohorts; and, in particular, fully characterise the order of *Zingiberaceae*, trace its affinities to the *Marantaceae* and *Musaceae*, and enumerate the species grown for culinary use in Bengal.

(b) Characterize the genus *Ficus*; describe the different kinds of florets which may be found inserted on the receptacle in different species and show how they may be made use of in dividing the genus into well-defined sections. Enumerate the species of *Ficus* indigenous in the plains of Bengal.

(c) Describe the various forms of tendrils and of the androecium in *Cucurbitaceae*, illustrating them by diagrams, and explain their morphological nature. In particular, refer to the androecium of such species as *Lagenaria vulgaris* Sen. or *Cucurbita Pepo* Linn., and give a list of the species of *Bengal Cucurbitaceae* the fruits of which are used as vegetables.

BOTANY.

THIRD PAPER.

Examiners—{ S. C. MAHALANOBIS, ESQ., B.Sc., F.R.S.E.
S. C. BANERJEE, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

1. What do you understand by distribution of plants in time? What are the agents which have been at work in recording such distribution? Describe the various processes of recording.

2. In the tertiary era a sudden change in the vegetation is noticed. Describe the nature of vegetation on the surface of the earth previous and subsequent to that era, and point out what is suggested as to the ancestry of the spermatophytes of to-day.

Or,

"Gymnosperms are more primitive land plants than Angiosperms." Explain this from fossil evidence and from morphological differences between the two.

3. What is the present state of our knowledge regarding the manner in which proteid arises from the products of assimilation in the plant body ?

4. Criticise the theories advanced by Berthold and Bütschli respectively as to the cause of protoplasmic movements, e.g. those exhibited in a plasmodium.

Or,

Give an account of the investigations on the mechanism of nyctitropic movements.

BOTANY.

FOURTH PAPER.

Examiners— { S. C. MAHALANOBIS, ESQ., B.Sc., F.R.S.E.
J. C. NAG, ESQ., B.Sc.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

1. Discuss the position of rest in plants in response to Gravity, and also state the nature of the structural elements responsible for the reception of this particular stimulus.

2. Compare the different views that are prevalent regarding the anatomy of the Chlorophyll Capsule. Discuss the structure of the chloroplasts in *Spirogyra*, *Chadophora* and *Anthoceros*. State why the fragmentation of the chromatophores has taken place in case of higher plants.

Or,

Discuss fully the structure and function of the latex conducting tubes and cells. Cite experimental evidence in support of the view you hold as to the function of this particular tissue.

3. Describe the electrical changes that take place in a living plant tissue when subjected to some form of stimulus.

4. Give an account of the dermal system in the thallophyta, with special reference to the histology of the dermal tissue found among the lichens.

Or,

Discuss the general characters of haustorial organs of embryos and describe the histology of the structures you mention.

BOTANY—PRACTICAL.

FIRST PAPER.

1. Give a complete description of one of the dried and one of the 80 fresh specimens, and a description of the inflorescences, flowers, fruits and seeds of the other two specimens. Point out which of the characters are probably ordinal, which generic, and which specific.

Make neat drawings of the parts of the flowers, of the fruits and seeds, and name the specimens.

2. Submit your note-books, accounts of excursions and dried 20 specimens collected by you.

BOTANY—PRACTICAL.

SECOND PAPER.

1. Work out in detail the morphology of specimen A. Identify 40 and give reasons for your answer. Leave slides in support of your answer.
2. Work out the morphology of specimens B and C. Is there any 50 biological connection between the two?
3. Oral. 10

BOTANY—PRACTICAL.

THIRD PAPER.

1. Devise an experiment to show whether both surfaces of a leaf transpire equally.
2. Determine the percentage of organic matter in the soil provided.
3. Demonstrate the process of cell-to-cell osmosis in vegetable tissues.
4. Instruments and oral.

BOTANY—PRACTICAL.

FOURTH PAPER.

The figures in the margin indicate full marks.

1. Prepare permanent slides from specimen A to show the develop- 30 ment of spores. Write notes and give sketches.
2. Cut transverse sections of specimens B and C. Stain and mount 30 in Canada balsam. Identify the specimens from your sections, giving reasons.
3. Demonstrate the use of Cambridge Rocking microtome. 20
4. Produce for examination your record of embryological and 20 other microscopic work done by you during the course of your study.

PHYSIOLOGY.

FIRST PAPER.

Examiner—RAI BAHADUR DR. UPENDRANATH BRAHMACHARI,
M.A., M.D., PH.D.

*Candidates are required to give their answers in their own words
as far as practicable.*

All questions are of equal value.

1. Discuss the mechanism of oxidation in the tissues and write a note on purine metabolism.
2. Give an account of the variations that may take place in the venous pulse tracing, and write a note on the excitation wave in the heart.
3. Write a careful note on the estimation of the non-protein nitrogen of the blood. How would you estimate the amino-acids of the blood?
4. Discuss the relationship of the Pituitary and Suprarenals to the Genital System and Carbo-hydrate Metabolism.

PHYSIOLOGY.

SECOND PAPER.

Examiner—RAI BAHADUR DR. U. N. BRAHMACHARI, M.A.,
M.D., PH.D.

*Candidates are required to give their answers in their own words
as far as practicable.*

THREE questions only are to be answered.

1. Discuss critically Sherrington's conception of a "Synaptic membrane." Discuss in detail the various theories of Inhibition.
 2. Give an account of our knowledge regarding "conditioned" as differentiated from "unconditioned" reflexes.
 3. Write an essay on the nervous mechanism of secretion.
 4. Write a dissertation on the structure and functions of the cerebrum, referring particularly to the history of the investigations made in this connection.
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PHYSIOLOGY.

THIRD PAPER.

Examiner—S. C. MAHALANOBIS, ESQ., B.Sc., F.R.S.E.

*Candidates are required to give their answers in their own words
as far as practicable.*

Only THREE questions are to be answered.

The questions are of equal value.

1. Criticise the general principles involved in the experimental methods adopted for the verification of Weber's law and Fechner's corollary
2. Discuss the functions of the different structures in the Cochlea with special reference to its use as a resonating apparatus. Explain the sensations of harmony and dissonance.
3. Compare the dioptric apparatus in the eye of a land animal with that of an aquatic animal, with special reference to the respective ways of effecting accommodation to near or distant objects
4. Discuss the doctrine of specific nerve energy with special reference to the cutaneous sensations.

PHYSIOLOGY.

FOURTH PAPER.

Examiner—N. C. BHATTACHARYYA, ESQ., M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

Only THREE questions are to be answered.

The questions are of equal value.

1. Discuss the rôle of fat in the vital phenomena.
2. Give an account of the various theories and facts concerning the formation and the destruction of purine derivatives in the living organism.
3. Give an account of the isolation, constitution and importance of Tryptophane.
4. Trace the development of the modern theory of protein metabolism

GEOLOGY.

FIRST PAPER.

Examiners—{ G. D. COTTER, ESQ.
H. C. DAS GUPTA, ESQ., M.A., F.G.S.

All questions carry equal marks.

FIRST HALF.

Only THREE questions are to be answered from each half.

1. It has been said that earthquakes are related to one or both of the two processes of folding and faulting. From this point of view discuss the causes and any peculiarities in the earthquake maps of the Assam Earthquake of 1897, the Kangra Earthquake of 1905, and the Burma Earthquake of 1912.

2. Write an essay upon quaternary earth movements and warping of the land in India and Burma. What evidences have we of

- (a) Raised beaches,
- (b) Submergences of the coast,
- (c) Changes in river courses,
- (d) Abnormal distribution of alluvium in river valleys, in India and Burma?

Are there any estuaries in India? What conclusion can we draw from the evidence in our possession?

3. Explain how the solid ice of a glacier is able to flow down a valley. What is an ice-cascade? Distinguish between the *névé* and the glacier tongue, and explain how the *bergschrund* is formed.

Icebergs from the South Polar continent consist of *névé* ice, while those from Greenland are of blue glacier ice. Why is this?

4. Explain the conditions under which were formed the following:—

- (a) Silicified fossil wood in the Irrawaddy Series,
- (b) Green earth in the Deccan Trap,
- (c) Nodules of marcasite in alluvium,
- (d) Kankar in the older alluvium.

5. Discuss the origin of the various lakes of India and Burma, as for instance the Kumaon lakes, the Lonar lake, the lakes opposite Monywa in the Lower Chindwin district, and the Chilka lake, and any others you may recollect.

SECOND HALF.

Only THREE questions are to be attempted.

1. Discuss the origin of the different oxides of aluminium that are known to occur in India, together with their distribution.

2. Describe the various ways in which the secondary enrichment of mineral veins may be brought about.

3. (a) How does *castiterite* occur in nature? Give an account of the tin ore deposits of India.

(b) Describe the different purposes for which pigments are used. Enumerate the different minerals necessary for the manufacture of the various types of pigments and mention those of them that are known to occur within India.

4. Enumerate the different indications you think favourable for the occurrence of mineral-oil deposits. Discuss the possibility of getting good supplies of mineral-oil in North-Western India.

5. What are the conditions essentially necessary for an *artesian well*? Point out the advantages in irrigation by means of the artesian wells and give a general survey of the artesian conditions as they prevail in the different provinces of India.

GEOLOGY.

SECOND PAPER.

Examiners— { SARATLAL BISWAS, Esq., M.Sc.
E. VREDENBURG, Esq., B.Sc.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Only THREE questions to be answered.

1. Discuss the various hypotheses propounded to meet the non-conformity of the usually accepted formulas of the end members of the Sodi-Calcic Feldspars or of the Scapolite group with the theory of isomorphism as enunciated by Mitscherlich. 16

2. Explain, by Roozeboom's curve, the development of Zonal and Hour-glass structures in minerals. 16

3. (a) Give an account of the distribution and uses of the minerals of the rare metals found in the Indian Empire. 18

(b) Write short notes on—Christobalite, Carnegieite, Pseudo-Wollastonite, and Clino-Enstatite.

4. Explain how the Isochromatic curves of equal retardation and the Isogyres are formed in sections of Biaxial crystals cut perpendicular to the first Median line. 16

5. (a) Describe, with pencil drawings, the crystallographic features of Orthoclase, Calamine, and Stilbite. 16

(b) Give the chemical composition and crystalline form of Holandite, Polybasite, Wulfenite, and Sylvanite.

SECOND HALF.

Only THREE questions to be answered.

All the questions carry equal maximum marks.

6. Enumerate and describe briefly those rocks which contain from 55 to 65 per cent. of silica, together with 20 per cent. or more of alumina, the remainder consisting principally of alkalies.

7. Tabulate the commonest forms of igneous rocks occurring in India. Give an idea of their distribution and relative importance.

8. Give an idea of the mode of occurrence of diorites, their degree of frequency, and their distribution in the world in general, and particularly in India.

9. Describe some instances of the transformation of amphibole into pyroxene in the case of Indian granulites.

10. Do you consider that there is any essential difference between an acid pegmatite and a coarse-grained granite? According to whichever view you adopt, explain the mutual relations or distinctions between both classes of rocks.

GEOLOGY.

THIRD PAPER.

Examiners— { E. VREDENBURG, ESQ., B.Sc.
 { H. C. DAS GUPTA, ESQ., M.A., F.G.S.

Candidates are required to give their answers in their own words as far as practicable.

Only THREE questions to be answered from each half.

All questions carry equal marks.

FIRST HALF.

1. How would you ascertain whether an observed sequence of rocks may or may not belong to the type of displaced masses known as "charriage."

2. Describe the structure and discuss the stratigraphical relationships of the khondalites.

3. Discuss in detail the character by means of which it may be possible to ascertain whether an observed sequence of beds in India is referable rather to the Newer than to the Older Transitions, or *vice versa*.

4. Which rocks, in the Indian region, are regarded as referable to the Jurassic system? Briefly enumerate their characters.

5. How many periods of igneous activity are recognisable in the geological history of India? Describe briefly the characters of each of them.

SECOND HALF.

N.B.—THREE questions are to be attempted.

1. Give an account of the important contributions that have been made to Palaeobotany in the present century.

2. (a) Give an account of the Rajmahal cycads.

(b) What are coal-balls? Describe their origin and distribution.

3. Give an account of the *Ammonites* that have been found in the Permian and Triassic beds of India.

4. (a) Give an account of the reptilian fossils that have been found in India.

(b) State all that you know of the eocene mammalian fauna of Burma.

5. Give an account of the Siwalik *Giraffidae* and *Hippopotamidae* and point out the light they throw on the evolution of these two families.

GEOLOGY.

FOURTH PAPER.

Examiner—DR. H. H. HAYDEN, C.I.E., D.Sc., F.R.S.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Only FOUR questions to be attempted; viz. 1, either 2 or 3, either 4 or 5, either 6 or 7.

1. Explain the bearing of Laue's X-ray photographs of crystals 30
on the theory of crystal structure.

2. Describe and *explain* the phenomena observed in a plate of a 20
uniaxial crystal, cut at right angles to the axis, when viewed be-
tween crossed nicols in convergent polarised monochromatic light.
Illustrate your *explanation* by means of a diagram.

Or,

3. What are *Airy's Spirals*? Explain the reasons for their pro- 20
duction.

4. What do you understand by the term *petrographical province*? 20
Illustrate your answer by a description of one such province with
which you are familiar.

Or,

5. Discuss the petrography and history of the Dharwar system of 20
Southern India.

6. How would you determine the orientation of the clinopinacoid 20
and of the unit prism in a crystal of mica of which you had only a
basal cleavage plate showing no crystal edges?

Or,

7. Give the chemical composition, crystallographic and optical 20
properties of chondrodite. Name two other minerals belonging to
the same group.

GEOLOGY—PRACTICAL.

SPECIAL PAPER IN MINERALOGY AND PETROLOGY.

This powder has been produced by crushing and powdering a certain rock, and then passing the powdered rock through a sieve with medium-sized meshes. The rock is a peculiar one, consisting mainly of two minerals, one of which is greatly preponderating. There are also certain impurities present.

You are to find out the composition of the rock, and to name the two minerals of which the rock mainly consists. In naming the rock, you must endeavour not only to give the general name of each mineral, but as far as you can to give the name of the variety.

EXPERIMENTAL PSYCHOLOGY.

FIRST PAPER.

Examiners— { S. C. MAHALANOBIS, ESQ., B.Sc., F.R.S.E.
 { DR. N. N. SENGUPTA, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Full marks—50.

Only THREE questions to be answered.

The questions are of equal value.

1. Discuss the arguments that have been adduced in support of the existence of "Association centres" (Flechsigs) in the cerebral cortex.
2. Criticise from the psychological side the results of Head's researches on protopathic and epicritic sensibility.
3. The cerebellar cortex has been stated to be a supreme centre on the sensory side. Examine this statement from a psychological standpoint.
4. Give a critical and comparative estimate of the influence of Weber, Herbart, Fechner and Wundt on the growth of the "new" psychology.
5. Give a psychophysical analysis of the various phases of the speech function.

SECOND HALF.

Full marks—50.

Not more than THREE questions to be answered.

Questions carry equal marks.

1. Comment on three of the following in the light of experimental and observational evidence:—

- (i) Attention consists in the increase of intensity of sensations.
- (ii) Emotion is produced by thinking.
- (iii) There is no clear proof at all of reproduction by similarity or contrast.
- (iv) The law of association in its most general form asserts that two ideas, a and b , under certain circumstances, connect with one another in such a way that the appearance of one of them, a , affects the reproduction of the other, b .

$$(v) S_1 - S_2 = f\left(\frac{R_1}{R_2}\right)$$

$$S_1 - S_3 = f\left(\frac{R_1}{R_2}\right) + f\left(\frac{R_2}{R_3}\right)$$

and also
$$S_1 - S_3 = f\left(\frac{R_1}{R_3}\right)$$

$$= f\left(\frac{R_1}{R_2} \times \frac{R_2}{R_3}\right)$$
therefore,
$$f\left(\frac{R_1}{R_2}\right) + f\left(\frac{R_2}{R_3}\right) = f\left(\frac{R_1}{R_2}\right) \times f\left(\frac{R_2}{R_3}\right)$$

Hence,
$$S_1 - S_2 = C \log \frac{R_1}{R_2}$$

$$S_1 - S_0 = C \log \frac{R_1}{R_0}$$

therefore
$$S = C \log R.$$

2. Describe the "Gradation methods" in their application to the determination of *EL* and *DL* of a specific sensation.

3. Discuss two of the following :

(a) Fechner's method of eliminating the constant total error of time and space order of Stimuli.

(b) The principle of time-control in Psychological experiments.

(c) The different methods of reducing Qualitative experiments to Quantitative ones.

4. Critically examine the theories of "Sensory fusion" as enunciated by Herbart, Lipps, Stumpf and Wundt.

5. Critically examine the doctrine of psychic causation with special reference to the following :—

(a) The doctrine of the Subconscious.

(b) The concept of elementary will quality.

(c) The concept of mental activity.

(d) The postulate of parallelism.

EXPERIMENTAL PSYCHOLOGY.

SECOND PAPER.

Examiners— { DR. B. C. GHOSH, M.A., M.B.
DR. G. S. BOSE, M.Sc., M.B.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Full marks—50.

Try ANY THREE.

The questions are of equal value.

1. Discuss the abnormality of :—

(a) The only child.

(b) The miser.

(c) The kleptomaniac.

(d) The malingerer.

2. Write short notes on any *four* of the following :—

- (a) Prison Psychosis.
- (b) Day-dreaming.
- (c) Familial constellation.
- (d) Freud's Theory of Wit.
- (e) Bergson's Theory of Art.
- (f) Auto-eroticism.

3. Write short accounts of the Insanities that most frequently lead to crime.

4. Give an account of the theories of crime and of the psycho-analytic study of antisocial behaviour.

5. Discuss the therapeutic action of psycho-analysis and the consequences of the assimilation of the unconscious.

6. Develop Jung's view of the compensatory function of the unconscious, referring specially to psychological types.

SECOND HALF.

Only THREE questions to be answered.

All questions carry equal marks.

1. Write a short history of *hypnotism*, noticing briefly the various theories on the subject.

2. What is *mono-ideic somnambulism*? How has this phenomenon been explained (1) by Janet and (2) by Freud?

3. Write short notes on (1) *complex formation*, (2) *dissociation*, (3) *conservation*, (4) *automatism*, (5) *symbolisation*, (6) *perversion*, (7) *inversion*, and (8) *conversion*.

4. Discuss the mental peculiarities of the *hysteric*.

5. Describe briefly the various types of *amnesia* and explain their mechanisms.

6. Describe the influence of *internal secretions* on mental states.

EXPERIMENTAL PSYCHOLOGY.

THIRD PAPER.

Examiners— { K. N. MITTER, ESQ.
M. N. BANERJEE, ESQ., M.Sc.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt Question 1 and two others.

FIRST HALF.

1. What rôle do the following physio-biological factors play in the determination of the behaviour of Queen and worker ants :—

- (1) Heredity and instinct.
- (2) Structural polymorphism.
- (3) Ontogenic factors.

2. What are the important structures and functions that condition the perception of distance in human beings? Point out the analogous structures and functions in the case of lower organisms. 15
3. Discuss :— 15
- (1) The 'Local Action Theory' of tropism as expounded by Jennings.
- (2) Reactions of the following organisms to photic stimulation :— Amoeba, Paramecium, Hydra, Sea-anemone, Medusae, Gonionemus, and Cubomedusae.
- Trace the evolution of the light-receiving organ in the above-mentioned organisms.
4. Comment on the following :— 15
- (1) Schiller-Spencer theory of play.
- (2) Karl Groos' theory of play.
- (3) How bees find their way home.
- (4) Sanguinary and 'Slave-making' instinct of *Formica sanguinea*.
- (5) How bees recognize nest mates.
- (6) The chemical sense in earthworms.
5. Explain the origin of sexual impulse according to the Weismanian theory of 'Caryogamic Rejuvenescence.' Confirm your statements by citing well-known biological phenomena. 15
6. Describe the behavioristic peculiarities of the Japanese 'Dancing Mouse.' How would you account for them? 15
7. (1) Show the evolution of visual apparatus starting with the Amphioxus. How would you account for your answer in view of the inheritance of the effects of use and disuse? 15
- (2) Explain the formation of mosaic vision, and describe the structure of the eye possessing such vision.

SECOND HALF.

You are not permitted to attempt more than THREE questions.

All questions are of equal value.

1. Give a short account of Sherrington's work on various types of reflexes and their bearing on the evolution of intelligence.
2. Trace the evolution of the herd instinct in the animal kingdom and dwell on the biological and psychological aspects of the same. Discuss the position of the individual in the herd.
3. Write a note on the life-history and behaviour of any two of the following :—A frog, a butterfly, and a bee.
4. Comment on the significance of imitation as a factor of mental development in the animal kingdom.
5. Discuss the limits of educability in animals.
6. Contrast the psychic life of higher apes with that of man.
7. Write a short essay on memory in animals.
8. Explain and discuss any one of the following :—
- (a) "Feeling has relations to intellect as obvious and fundamental as are the analogies between intellectual processes and reflex action."
- (b) "Resultant singleness of action from moment to moment is a key-stone in the construction of the individual whose unity it is the specific office of the nervous system to perfect."

EXPERIMENTAL PSYCHOLOGY.

FOURTH PAPER.

Examiners— { DR B. N. SEAL, M.A., PH.D.
H. BHATTACHARYYA, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

All the questions are considered as of equal value.

FIRST HALF.

Full marks—50.

1. Represent by diagrams the supposed paths and connections of speech centres, and support the scheme you prefer by references to the imperfections of children's speech as well as to the disturbances of speech in adults.

Or,

Trace the development of speech in children with special reference to the following:—

- (a) the use of articles, pronouns, adjectives and conjunctions;
- (b) the formation of clauses and sentences;
- (c) the use of the interrogatives, 'what,' 'why' and 'when.'

2. Trace the development of the Will from a basis of reflex, instinctive and expressive movements, as illustrated by (1) seizing, (2) walking.

Or,

Examine the more important theories of Instinct, and apply the one you prefer to the explanation of any two of the following:—(a) the instinct of play, (b) the instinct of jealousy, (c) the instinctive fear of open places.

Or,

Examine the moral nature of children with special reference to—

- (a) their falsehoods, their cruelty, and their selfishness;
- (b) their judgments of right and wrong;
- (c) their attitude towards punishment.

3. Give a general view of the results of the experimental study of children, with reference to the following:—

- (a) the curves of practice, of learning and forgetting, and of fatigue;
- (b) children's memory and children's interests.

Note under (b) the order of development and the differences of sex and age.

Or,

Describe the changes due to adolescence in the physical and mental life of children, and discuss them in the light of psycho-therapy, with special reference to the influence of hormones and glandular secretions.

SECOND HALF.

The figures in the margin indicate full marks.

1. Discuss the etiology of mental deficiency in children with special reference to heredity. 16

Or,

Discuss the psychological principles on which the education of the blind, the deaf and the deaf-mute is based.

2. Compare ancient and modern educational methods with reference to— 16

- (a) mental types,
- (b) children's interests,
- (c) courses of study, and
- (d) punishment.

Or,

Discuss fully the problem of Co-education with special reference to the mental make-up of the sexes.

3. In what respects does the 'Children's House' of Montessori differ from the 'Kindergarten' of Froebel? What aspect of children's mind is emphasised in each? 15

Or,

Give a critical estimate of Rousseau's *Emile*, examining its main principles of education.

Or,

Write a short essay on Exceptional Children.

EXPERIMENTAL PSYCHOLOGY—PRACTICAL.

PAPER V.

1. Obtain a campimetric record of your left eye for green along a meridian passing through the blind spot. 10 + 10
Indicate how this record may be transferred to a perimetric chart.
2. Find the "time of lag" & the sensation of a White over a Black. 10 + 10
3. Illustrate graphically the variation in the frequency of vibration of the tuning fork provided, due to the sliding of the rider through a given range. 10 + 10
4. Demonstrate the "Summation effect" on a touch spot. 10 + 10
5. Find the "choice" and the "Discriminative" reaction times in 0 of your subject, using light and sound as stimuli. 12 + 8
6. Viva Voce. 16

EXPERIMENTAL PSYCHOLOGY—PRACTICAL.

PAPER VI.

Answer any TWO of the following five questions, and nos. 6 and 7.

- | | |
|---|----|
| 1. Demonstrate the effects of accommodation of visual attention. | 35 |
| 2. Demonstrate the phenomenon of fluctuation of visual attention. | 35 |
| 3. Demonstrate the dynanogenic effect of auditory sensations. | 35 |
| 4. Demonstrate the difference between sensory and muscular re-
tation. | 35 |
| 5. Determine the image type of your subject. | 35 |
| 6. Demonstrate the uses of the instruments A and B. | 14 |
| 7. Viva Voce. | 16 |

EXPERIMENTAL PSYCHOLOGY—PRACTICAL.

PAPER VII.

1. Obtain the simple reaction of your subject by the graphic method.
2. Demonstrate graphically the influence of affection on muscular fatigue.
3. Represent, by the graphic method, how emotional changes find expression in organic movements.
4. Viva voce.

EXPERIMENTAL PSYCHOLOGY—PRACTICAL.

PAPER VIII.

(Marks will be awarded for methodical work and for neatness of record. Candidates should exercise their own discretion as to the number of observations required in any experiment, but in no case need the number exceed 20. Tables for constant will be supplied where necessary.)

1. Devise an experiment (excluding the use of the colour-wheel) to determine the D.L. for brightness of Light. 28

Or,

Devise an experiment to demonstrate the method of Average Error, and plot out a frequency curve of the variable. Indicate the methods of determining the mean, the median, the mode, the standard deviation and the probable error of the values obtained.

2. Find the upper D.L. for any sensation by the method of Just Noticeable Differences. 28

Or,

Find the lower limit of simultaneous discrimination of 2 points on any portion of your subject's skin by the Method of Right and Wrong Cases.

3. Set up the Vibrating Spring Time Marker accurately to indicate 0.25 sec. 16

4. Open a page of your note-book. Concentrate your attention on a letter by looking at it steadily, and give a detailed introspective record of the attentive consciousness. 12

5. Viva voce. 16

L.T. Examination.

1918.

FIRST PAPER.

THE THEORY AND PRACTICE OF TEACHING IN RELATION TO MENTAL AND MORAL SCIENCE.

*Examiner—*M. P. WEST, ESQ., M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

Do the FIRST question, and FOUR others.

Each question counts for twenty marks.

1. Was the teacher right or wrong? Why?

(a) "I want you to make a box. First I shall tell you how to do it. Then I shall draw a picture. Then we will go to the workshop."

(b) "I am trying to train you to habits of punctuality, but for this once I will make an exception."

(c) "Write out the poem which you have to repeat to-morrow. That will help you to learn it."

(d) "Now I shall do an experiment to show that metal expands when heated."

(e) A Time Table.

1st Period.

2nd ..

3rd ..

Interval 25 minutes.

Another Time Table.

1st Period—Interval 5 mins.

2nd .. — .. 10 mins.

3rd .. — .. 15 mins.

Which is more correct, and why?

2. What is known of the Psychology of Memory? Give practical advice. By what means were the facts of memory investigated?

3. Discuss and illustrate the main characteristics of a child's attention.

4. Outline the main stages of mental development.

5. What is an instinct? Enumerate the main instincts. Discuss the training of instincts.

6. Apply psychology to the teaching of either Number or Bengali Composition and Essay-writing.

7. Give practical applications of the psychology of Fatigue to school work, explaining the causes and types of fatigue.

SECOND PAPER.

METHODS OF TEACHING SPECIFIC SUBJECTS AND
SCHOOL MANAGEMENT.*Examiner—W. E. GRIFFITH, ESQ., M.A.**Candidates are required to give their answers in their own words
as far as practicable.**All the questions are of equal mark value.**Six questions to be answered, of which three must be answered from
Section A, and three from Section B.*

A.

1. State clearly what you mean by the organization of a school.
2. What are the chief points to be considered in the preparation of a lesson? Illustrate from your own experience.
3. Consider the chief uses of the blackboard in class teaching. Illustrate from lessons which you have either given or observed.
4. State the principles which should guide a teacher in planning a time-table for a high school of Bengal. Illustrate your answer by drawing up a time-table for one week for one of the classes.
5. "A school library should be of real use." Say what types of books you would include in the library, and suggest any ways of making such a library of interest and value to the staff and students.
6. State and discuss the plans which you would adopt for fostering the social spirit in schools.

B.

7. Describe some of the ways by which the teaching of English in the high schools of Bengal might be improved; and suggest plans which you would carry out if opportunity were given.
 8. Why is dictation included in the school curriculum? Give in detail the steps which you considered it necessary to take in order to secure its greatest value.
 9. Sketch briefly the methods which you would employ in helping children to read intelligently.
 10. By what method would you begin to teach Long Division in Arithmetic? Give reasons.
 11. What use would you make of the following in teaching geography:—
 - (a) Literature of travel and exploration.
 - (b) Class Text-books.
 - (c) Globes.
 - (d) Photographs.
 - (e) School Journeys.
 12. Of what value are Nature Calendars to school children? Would you prefer the individual child's calendar or a class calendar? State the reasons for your opinion.
-

THIRD PAPER.

SELECTED EDUCATIONAL CLASSICS.

Examiner—H. A. STARK, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. What qualifications do Thomas Arnold and Locke respectively desire in a teacher? Account for the variations in their ideals of a teacher. 9

Or,

What do Arnold and Locke respectively consider to be the proper and ultimate ends of education?

2. Discuss according to Locke the advantages and disadvantages of education at home and at school. In what points may Arnold be supposed to agree with, and differ from, Locke upon this subject? 9

3. What did Arnold hold to be the peculiar functions of the Sixth Form in the corporate life of an English public school? Explain the means by which he aided that Form to discharge those functions. 8

4. Describe the "fag" system of an English public school, and dwell on its good and bad features. 8

Or,

Describe the "house" system as it was organized by Arnold at Rugby, and indicate how it influenced the lives of the boys in that school.

5. According to Locke what moral injury does the *fond* (as distinguished from the *affectionate*) parent do his child of tender years? What measures has such a parent to employ later on to mitigate the evil consequences of his early "fondness"? Does Locke's censure of the "fond parent" apply to the average home in your part of India? 8

6. Describe the reading-games by which Locke would have children taught reading. Can his reading-games be adapted to the teaching of reading in the vernacular languages of India? 8

7. Write an Essay on *any one* of the following subjects:— 50

(a) The loyalty of the peoples of India to the King-Emperor as evinced in the present war;

or (b) The actual functions and value of public examinations;

or (c) The reaction of their environment upon the moral, intellectual, and physical culture of schoolboys in Bengal.

FOURTH PAPER.

A SELECTED COURSE IN MODERN ENGLISH
PROSE AND POETRY.*Examiner—J. W. HOLME, ESQ., M.A.**Candidates are required to give their answers in their own words
as far as practicable.**The figures in the margin indicate full marks.**Two questions from each section to be answered.*

A.

1. Describe in your own words the adventures of Lady Clare 25
during the battle of Flodden.
2. Give a short character-sketch of Marmion. 25
3. Write a short account of old English Christmas festivities. 25

B.

4. Mention some of the abuses of the English poor-law system with 25
which Dickens deals in *Oliver Twist*.
 5. "Dickens is more successful in delineating characters from low 25
life than from high." Can you justify this?
 6. Write a brief account of the part taken by Nancy in the story. 25
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B.T. Examination.

1918.

FIRST PAPER.

THEORY AND PRACTICE OF TEACHING IN RELATION TO MENTAL AND MORAL SCIENCE.

Examiner—M. P. WEST, Esq., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Do the first TWO questions, and THREE others.

Each question counts for 20 marks.

1. Write a description, physical and mental, of any child whom you know well, mentioning his special interests, and mental abilities, his special powers and defects, mental and physical. Estimate the relative importance of heredity and environment in producing his present make-up.

2. You are asked to make a study of the comparative ability in Rote-memory of Indian and English boys. Describe your apparatus, methods, and state how you would express your results.

3. Describe the nervous system and its working. Use plenty of diagrams. How far is the doctrine of Faculty true? How far are functions localised as was maintained by the Phrenologists?

4. Discuss the Psychology of Reading.

5. Apply the Psychology of Sentiments to the training of character.

6. Enumerate all the Sensations. Give advice on the hygiene of the external sense-organs.

7. Expound the psychology of Skill and Habit.

8. Discuss the theory of the physical basis of Emotions, and its practical application, the relation of Emotion and Instinct. Explain Freud's doctrines regarding suppressed emotions and their educational importance.

SECOND PAPER.

METHODS OF TEACHING SPECIFIC SUBJECTS AND
SCHOOL MANAGEMENT.*Examiner—W. E. GRIFFITH, ESQ., M.A.**Candidates are required to give their answers in their own words
as far as practicable.**All the questions are of equal mark value.**Six questions to be answered, of which two must be taken from Section A,
and four from Section B.*

A.

1. "Examinations should not only be a test of knowledge acquired: they should also be an integral part of teaching and mental training." Discuss and illustrate this statement.

2. Describe the structure and arrangement of the seating accommodation which you consider most suitable for the class-rooms of a high school of Bengal. Add what is necessary about the size of the school and its classes, the age of the scholars, and the dimensions of the rooms.

3. What actual difficulties of class management have you experienced? In what ways has your course of training been helpful to you in overcoming them?

4. Discuss the value of the physical exercise and mental training which can be derived from the various games commonly played by schoolboys in Bengal.

5. What are the advantages and disadvantages of class teaching as compared with private tuition? What private tuition does a boy who attends a high school require?

B.

6. What is your general plan for teaching written composition? What use do you make of oral methods in connection with such lessons?

7. With which class would you begin the teaching of formal grammar? What attainments in the subject would you expect of an intelligent boy when he leaves school at the age of sixteen?

8. The old method of teaching geography consisted largely in memorising lists of names of places, many of which were of little importance. How do the newer methods of teaching geography attempt to avoid this condition of things? Give instances.

9. Give an outline of a first course of lessons in fractions in Arithmetic. What concrete and graphical illustrations would you use?

10. What are the general principles which underlie the teaching of drawing in schools? What use should the teacher make of the black-board?

11. To what extent can the heuristic method be used in the teaching of science? Illustrate your answer by reference to some particular lesson which you have either given or observed.

12. Choose a period of Indian history, and show how you would arouse a preliminary general interest among your pupils in the period as a whole.

THIRD PAPER.

HISTORY OF EDUCATIONAL IDEAS AND METHODS.

*Examiner—E. E. BISS, Esq.**Candidates are required to give their answers in their own words as far as practicable.**The figures in the margin indicate full marks.*

1. Estimate the importance of the place given to discipline in the education of the ancient Hindu and the mediæval Mahomedan child. 20
How far does the modern High School provide for discipline in the old sense ?

2. Explain and discuss the place of Music in the Hellenic systems of education. 20

Or,

Contrast the education of a Churchman with that of a Nobleman in mediæval Europe, and discuss the part taken by the Church in education in those times.

3. Consider the natural reactions theory of punishment as presented by Rousseau and Spencer. 20

Or,

Expound the Horbartian theory of the formation of apperception masses, explaining and criticising its educational applications.

4. How far can a science of education be said to exist ? Briefly outline the history of the modern attempts that have been made for its establishment. 20

Or,

What man who has flourished in the last 300 years do you consider to be the soundest guide in forming your own educational practice ? Give some account of his life and work, indicating his educational principles, and describing his school practice if he had any.

5. What were the principles and organization of vocational education in Germany before the war ? 20

Or,

What part has education played in the regeneration of Japan ? Describe its organization in that country.

FOURTH PAPER.

SELECTED EDUCATIONAL CLASSICS.

Examiner—W. C. WORDSWORTH, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Answer questions 1, 7, and three others.

The figures in the margin indicate full marks.

1. Annotate in relation to the context *four* of the following:— 20
 - (a) They are only our own offspring, that we neglect in this point: and having made them ill children, we foolishly expect they should be good men.
 - (b) Forgive me therefore if I say, I cannot with patience think, that a young gentleman should be put into the herd, and be driven with a whip and scourge, as if he were to run the gauntlet through the several classes.
 - (c) It follows from this that all the untruths spoken by children are the fault of those who instruct them; and that endeavouring to teach them how to be truthful is only teaching them how to tell falsehoods.
 - (b) The tranquil period of intelligence is so brief, and has so many other necessary uses, that only folly imagines it long enough to make the child a learned man.
 - (e) Whatever interest he felt in the struggles of the political and ecclesiastical world, reacted on his interest in the school, and invested it in his eyes with a new importance.
 - (f) Mere intellectual acuteness, divested as it is, in too many cases, of all that is comprehensive and great and good, is to me more revolting than the most hopeless imbecility, seeming to be almost like the spirit of Mephistopheles.
2. Set out, and discuss, Locke's conception of the gentleman. In what points were his views at variance with the views that prevailed in his day? 10
3. Discuss Locke's position in regard to the teaching of languages. 10
4. "Apparent quickness in learning is the ruin of children." Examine this statement with reference to Rousseau's view of the place of memory in education. 10
5. Give some account of Arnold's methods of teaching, and discuss the aims which as a teacher he set before himself. 10
6. What meaning does Rousseau give to 'Nature,' and what is the place of Nature in his theory of education? 10
7. Write an essay on *one* of the following subjects:— 50
 - (a) The development of ideals as the chief work of education.
 - (b) The value of direct moral teaching.
 - (c) The claim of education to rank as a science.
 - (d) The value to the community of a good system of primary education.

Preliminary Scientific M.B. Examination.

APRIL, 1918.

CHEMISTRY.

THREE questions only to be answered from each half: the first question in each half is compulsory.

Write the answers to the two halves in SEPARATE books.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiner—RAI CHUNILAL BASU, BAHADUR, M.B., I.S.O.,
F.C.S.

1. How is bleaching powder ordinarily prepared? Give equations. 80
Describe its properties and uses. Name some other substances which are also used as bleaching agents and explain the mode of action of each.

2. What are the points of distinction between a "mechanical mixture" and a "chemical compound"? Classify the following under one or other of the above two heads and indicate how you would separate the constituents of each:— 60

(a) Gun-powder; (b) Sodium Chloride.

3. Explain the terms "colloids" and "crystalloids." Give examples. Describe the process of separating a colloid from a crystalloid substance and sketch the apparatus you would use for the purpose. 60

4. Describe the properties and uses of metallic lead. Explain the action of drinking water on lead. Name the important alloys of which lead is a constituent. 60

SECOND HALF.

Examiner—DR. BENIMADHAB CHAKRABARTI, B.A., L.M.S.

5. Describe the preparation, properties and uses of the following substances:—(a) Zinc Sulphate; (b) Potassium Bromide; (c) Ammonium Chloride; (d) Borax; (e) Carbon Disulphide. 80

6. Explain the following terms, giving one example in each case:— 60
(a) analysis; (b) empirical formula; (c) water of constitution; (d) acidimetry; (e) saturated solution.

7. How would you obtain nitrogen from ammonium nitrite? What would be the volume of nitrogen measured at 20°C. and under 740 mm. pressure from 10 grammes of ammonium nitrite? 60

8. Describe the preparation of arsenuretted hydrogen. What precautions would you take in the preparation of this gas? Describe its properties and show how it can be used as a test for arsenic. 60

PHYSICS.

Only THREE questions to be attempted in each half.

Write the answers to the two halves in SEPARATE books.

Sketches should be drawn in pencil.

Candidates are required to give their answers in their own words as far as practicable.

The questions carry equal marks.

FIRST HALF.

Examiner—TULSIDAS KAR, ESQ., M.A.

1. State Newton's laws of motion and obtain from the second law the definition of the C.G.S. unit of force.

2. Define specific gravity. Explain the method of finding the specific gravity of a powder insoluble in water, by the specific gravity flask.

3. State the laws of vibration of stretched string, and describe simple experiments with the sonometer to verify them.

4. Define latent heat of fusion of a solid. Describe the method of mixture for determining the latent heat of fusion of ice.

5. State Charles' law on the expansion of gases.

Find the mass of 100 litres of dry carbon dioxide at 30°C and under the pressure of 780 mm., the mass of 1 litre of hydrogen at N.T.P. being 0.089 gram.

SECOND HALF.

Examiner—NIBARANCHANDRA RAY, ESQ., M.A.

6. Explain fully how you would determine the relative intensities of two sources of light, proving any formula that you may use.

7. Describe any method of finding the focal length of a concave lens.

8. Explain the difference between the phenomena of *induction* and *conduction* in statical electricity. Explain fully how you would determine the nature of an unknown charge X with the help of a gold-leaf electroscope.

9. Define volt, ohm and ampere. Describe the construction and use of a tangent galvanometer with the help of a neat figure.

10. Describe the construction and use of Clarke's magneto-electric machine.

BOTANY.

Answer only TWO questions in each half.

The questions carry equal marks.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Examiner—C. E. CALDER, ESQ., B.Sc.

1. Give as full an account as you can of *one* of the following families:—

Convolvulaceae,
Apocynaceae,
Cucurbitaceae.

2. Enumerate the chief characters which are used to distinguish Monocotyledons from Dicotyledons, and discuss the values of these characters.

3. Write a short paper on—

Vegetative reproduction in higher plants.

Or,

Modes of dispersal of seeds and fruits.

SECOND HALF.

*Examiner**—DR. EKENDRANATH GHOSH, M.D., M.Sc.

4. Describe the microscopical structure of the leaf of a Dicotyledon. Give drawings.

5. Describe the life-history of Spirogyra. In what way does it differ from Ulothrix?

6. Trace the course of the transpiration current from the root hairs to the leaf of a plant.

ZOOLOGY.

Only TWO questions to be attempted in each half.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—S W. KEMP, ESQ.

1. How do the following animals feed?—*Amoeba*, *Nyctitheris*, 50
Hyrda, the Cockroach, *Achatina*. Describe the structures concerned.

2. Describe the nervous systems of *Achatina*, *Vino* and *Palaemon*. 50
What special organs of sense are found in these animals?

3. What is the difference between the classes of animals known as Coelomata and Coelenterata? How is the Coelom developed in the Earthworm and in *Palaemon*? 50

SECOND HALF.

Examiner—DR. EKENDRANATH GHOSH, M.D., M.Sc.

4. Describe the alimentary canal of the Bhēkti. Illustrate your answer with a drawing. 50

5. Describe the red-blood corpuscles of the Bhēkti, of *Bufo* and of the Guinea pig. What are the other constituents of blood? 50

Describe the development of a vertebrate eye. Illustrate your answer with drawings. 50

First M.B. Examination.

APRIL, 1918.

ANATOMY.

PASS PAPER.

Only two questions are to be attempted.

The questions are of equal value.

The figures in the margin indicate full marks.

FIRST HALF.

Examiner—ASST. SURGEON NANILAL PAN, M.B.

1. Describe the sinuses of the Dura Mater. 150
2. Describe the origin, course, relations and branches of the 150
Lingual Artery.
3. Write short descriptions of the following :— 150
Tympanic antrum (Mastoid antrum); Renal fascia; Filtration
angle of the eye; Ligamentum Denticulatum; Subsartorial plexus;
Clastrum.

SECOND HALF.

Examiner—LT.-COL. R. P. WILSON, F.R.C.S., I.M.S.

Only two questions are to be attempted.

1. Describe the Ischio-rectal Fossa, giving an account of its 150
boundaries and contents.
 2. Describe in detail the Palmar Fascia and contrast it with the 150
Plantar Fascia.
 3. Describe the Parotid gland and give its relations; mention 150
the vessels and nerves which are in close relation to it.
-

ANATOMY.

HONOURS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Only TWO questions are to be attempted from each half.

FIRST HALF.

1. Give a full description of the Urinary Bladder, in the male. 150
2. Give an account of the relations of the Trachea in the neck. 150
3. Describe the fourth Ventricle of the Brain. 150

SECOND HALF.

1. Describe the origin, insertion, action and nerve supply of the muscles entering into the formation of the soft palate. 150
2. What is an Emissary Vein? Enumerate the Emissary Veins, mentioning their communications. 150
3. Describe the ossification of the Mandible and the ossicles of the ear. 150

PHYSIOLOGY.

PASS PAPER.

Each question is of the same value.

Only TWO questions are to be answered in each half.

FIRST HALF.

Examiner—ASST. SURGEON BINAYLAL MAJUMDAR, L.M.S.

1. Draw a diagram showing the histological structure of Testes or Ovary.
2. Write short notes on the following:—
 - (a) Vitamines.
 - (b) Heart-block.
 - (c) Reaction of degeneration.
 - (d) Dicrotic wave.
 - (e) Rhodopsin.
 - (f) Wissel's granules.
3. Describe briefly the origin and destination of—
 - (a) bile-pigments.
 - (b) bile-salts.
 How would you detect their presence in the urine?

SECOND HALF.

Examiner—MAJOR D. McCAY, M.B., I.M.S.

4. Discuss briefly the evidence for the difference in function of glomerular and tubular epithelium of the kidney.
5. How is the normal temperature of the body maintained?
6. Define carefully the anatomical limitations of—
 - (a) upper motor neuron;
 - (b) lower motor neuron.

PHYSIOLOGY.

HONOURS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

Each question is of the same value.

Only two questions are to be attempted from each half.

FIRST HALF.

1. What are Hormones? How do they differ from enzymes? Enumerate the important hormones in the human body, noting against each its specific action.
2. Draw a diagram showing the structure of the cochlea, and trace carefully the path of an auditory impulse, as it travels from the internal ear to the cortex of the brain.
3. Give a brief account of the origin and significance of purin bodies; mention some ordinary articles of diet which are rich in purins.

SECOND HALF.

4. Discuss in detail the "alkalinity of the blood."
 5. Discuss the physiological explanations of the different forms of cardiac arrhythmia.
 6. Discuss the "so-called defects of an ordinary Bengali diet. How would you remedy them?"
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PHARMACOLOGY.

PASS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—LT.-COL. B. H. DEARE, M.B., D.P.H.,
M.R.C.S., I.M.S.

1. What is Pituitarin ? Discuss its action and therapeutic uses. 100
2. Discuss the influences which modify the action of Morphine. 100
3. What do you understand by the terms—^aEcbolic and Emmenagogue ? Classify them. 100

Or,

Discuss the action and therapeutic uses of Magnesium Salts. 100

SECOND HALF.

Examiner—DR. BIDHANCHANDRA RAY, B.A., M.D.,
F.R.C.S., M.R.C.S.

4. What is Thymol ? Give its pharmacological action and therapeutic uses, indicating the special precautions, if any, to be taken in its use. 150
5. Give the preparations from Belladonna Radix, and their doses. 150
Describe the toxic effects of Belladonna.

Or,

What are the different methods of introducing Hydrargyrum into the system ? What preparations and precautions are advised for each method. 150

PHARMACOLOGY.

HONOURS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

1. Discuss the therapeutic uses of Saline Infusions. 150
2. What is the Ionic Theory? Discuss its importance to Pharmacology, and give evidence in support of this theory. 150

SECOND HALF.

1. What is an Antidote? Give antidotes for the following drugs, explaining in detail their mode of action:— 150

(a) Opium.	(c) Zinc Salts.
(b) Strychnine.	(d) Mercurial Salts.
 2. Classify Emetics with reference to their mode of action. 150
- Explain in detail how the different groups act.

ORGANIC CHEMISTRY.

Write the answers to the two halves in SEPARATE books.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiner—RAI CHUNILAL BOSE, BAHADUR, M.B., I.S.O.,
F.C.S.

Answer Question 1 and two of the other three questions.

1. Describe briefly the various methods employed for the purification of an organic compound before it is submitted to ultimate analysis, and state how you would test for its purity. 40
2. How would you ordinarily prepare the following substances? State their properties and uses:— 30

(a) Ether;	(b) Phenylamine;	(c) Dextrin;	(d) Picric Acid.
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3. What is Petroleum, and what is its chief source? Name the principal constituents of the crude substance; state how they may be separated and indicate the uses of each. 30

4. Give the formula and one chemical test of each of the following substances :— 30

(a) Rochelle salts; (b) Glycerol; (c) Potassium Formate; (d) Benzoic acid; (e) Cane sugar; (f) Methyl alcohol.

SECOND HALF.

Examiner—R. N. SEN, Esq., M.A., M.Sc., F.C.S.

Answer Question 5 and two of the remaining three questions.

5. How would you show that Aniline contains Carbon, Hydrogen and Nitrogen ? 40

Calculate the percentage of Carbon, Hydrogen and Oxygen in an organic compound from the following data :—0.2046 gram of substance gave on combustion 0.2985 gram of carbon dioxide and 0.1255 gram of water.

6. Explain the formation of Chloroform from Alcohol and Acetone. 30
How would you determine the purity of a specimen of Chloroform ? What impurities is it likely to contain ?

7. Name some of the constituents of Opium. How is Morphine obtained, and what are its distinctive reactions ? How would you distinguish Strychnine from Brucine ? 30

8. How would you prepare Glucose and Lactose, and how would you distinguish them ? 30

What are the products of hydrolysis of cane sugar and starch ?

How would you convert cane sugar and starch into ethyl alcohol ?

Final M.B. Examination.

APRIL, 1918.

MEDICINE.

FIRST PAPER.

Examiner—RAI BAHADUR DR. UPENDRANATH BRAHMACHARI,
M.A., M.D., PH.D.

The questions carry equal marks.

FIRST HALF.

1. Discuss the etiology, and give the symptoms and diagnosis of acute anterior poliomyelitis, referring especially to some of the atypical forms.
2. Give the etiology, signs, symptoms and diagnosis of Empyema (Purulent pleurisy).

SECOND HALF.

3. Discuss the causes of a bruit at the base of the heart.

Or,

Give the symptoms, signs and differential diagnosis of a mediastinal tumour.

4. Discuss the causes of Leucopenia and Leucocytosis.

MEDICINE.

SECOND PAPER.

Examiner—LT.-COL. J. T. CALVERT, M.B., M.R.C.P., I.M.S.

The questions carry equal marks.

FIRST HALF.

- Enumerate the causes which give rise to enlargement of the spleen. Give the differential diagnosis of the common types met with in the wards.
2. Give the signs, symptoms and diagnosis of amoebic dysentery. Mention briefly its treatment.

SECOND HALF.

3. What is the normal position of the heart's apex beat? Mention all the conditions under which that position may be altered.

4. To what causes may increased frequency of micturition be due? How would you investigate such a case?

Or,

What are the causes of tremor? Discuss briefly the differential diagnosis?

MEDICINE.

HONOURS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

PART I.

1. What are the causes of a swelling or tumour in the right iliac fossa (in the male)? Discuss the differential diagnosis.

2. Give the etiology, morbid anatomy, symptoms and diagnosis of chronic pancreatitis.

PART II.

1. Give the etiology, physical signs, symptoms, diagnosis and treatment of sprue.

2. Give the physical signs, symptoms and diagnosis of adhesive pericarditis.

SURGERY.

FIRST PAPER.

Only TWO questions in the first half to be answered.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiner—COL. H. STEVENS.

1. State the difficulties which may be met with in Cithotrity and how they may be overcome. 75

2. Describe a case of tubercular disease of the upper epiphysis of the humerus. 75

3. Describe the anatomy and treatment of impacted fractures of the wrist and ankle. 75

SECOND HALF.

Examiner—DR. SURESPRASAD SARBADHIKARY, C.I.E., B.A.,
M.D.

4. State the symptoms, progress and treatment of septic infection of the lateral sinus. 75
5. Describe the disease known as "Oriental Sore" and its treatment. 75

SURGERY.

SECOND PAPER.

Only TWO questions in the first half to be answered.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiner—DR. SURESPRASAD SARBADHIKARY, C.I.E., B.A.,
M.D.

1. Under what circumstances are collections of blood or sanguineous fluid found in the pleura? Discuss the symptoms and treatment? 75
2. State the causation, diagnosis and treatment of subdiaphragmatic abscess. 75
3. Discuss the treatment of a freshly received septic compound fracture of the thigh in the lower third. 75

SECOND HALF.

Examiner—COL. H. STEVENS.

4. Describe the pathology, prophylaxis and treatment of tetanus. 75
5. Describe the symptoms and treatment of mucous colitis. Make a differential diagnosis between that condition and new growth. 75

MIDWIFERY.

PASS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—MAJOR H. B. STEIN, M.D., I.M.S.

1. How will you diagnose a case of backward displacement of the gravid uterus? What are its dangers? Describe your treatment of the condition. 125
2. What are the benign tumours of the uterus? What secondary changes may occur in them? Describe the symptoms and treatment. 125

SECOND HALF.

Examiner—DR. KEDARNATH DAS, C.I.E., M.D.

3. How would you treat a case of complete rupture of the perineum discovered 15 hours after delivery? 125
4. Write short explanatory notes on the following terms :— 125
 - Induction of labour.
 - Accouchement Force.
 - Pubiotomy.
 - Primary uterine inertia.
 - Hegar's sign of pregnancy.

Or,

What is Hyperemesis gravidarum? Describe its aetiology, pathology, symptoms, prognosis and treatment. 125

MIDWIFERY.

HONOURS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

1. Give the indications for vaginal Caesarean Section. Describe the operation in detail. 250

SECOND HALF.

2. What are the different forms of Toxaemia due to pregnancy ? 250
Discuss the aetiology of the Toxaemia of pregnancy

PATHOLOGY.

PASS PAPER.

Only FIVE questions to be answered.

The questions carry equal marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—LT.-COL. SIR LEONARD ROGERS, KT., C.I.E., M.D.,
I.M.S., F.R.S.

1. Describe the naked-eye appearances found post mortem in acute miliary tuberculosis. State how you proceed to isolate in pure culture the causative organism.

2. What tumours are most commonly met with in the breast ? How would you distinguish each microscopically ?

3. Discuss the physical and chemical changes which influence the life of pathogenic bacteria outside the body, illustrating your answer by examples.

SECOND HALF.

Examiner—DR. TARAKNATH SUR, L.M.S.

4. Describe the morbid changes in the liver that are associated with the following conditions:—(1) Amoebic infection. (2) Amyloid disease. (3) Anaemia (pernicious).

5. Enumerate the various nematodes that are pathogenic to man. State briefly the morbid lesions produced by each of them.

6. Name the various pathogenic micro-organisms that are found in connection with the urine. State the significance of their presence and the methods of their clinical demonstration.

PATHOLOGY.

HONOURS PAPER.

Only THREE questions to be answered.

All the questions carry equal marks.

FIRST HALF.

1. What pathogenic organisms are most frequently met with in contaminated wounds, including war wounds? Describe the lesions produced by the anaerobic varieties.
2. Describe the microscopical appearances of the crystals met with in the urine, and note the pathological significance of each.

SECOND HALF.

3. Describe the characters of the different fluids obtained by paracentesis abdominis. How would you proceed to examine them for their differentiation?
4. Describe the following phenomena, illustrating with examples, and mention the value of each in practical bacteriology:—
 - (1) Bordet-Durham Reaction.
 - (2) Arthus Phenomenon.
 - (3) Pfeiffer's Phenomenon.
 - (4) Haemolysis Test.

MEDICAL JURISPRUDENCE.

Candidates are required to give their answers in their own words as far as practicable.

Only TWO questions to be answered in each half.

The questions carry equal marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—MAJOR N. P. SINHA, M.B., M.R.C.P., I.M.S.

1. Define—Hallucination, Suggillation, Adipocere, Melancholia, Viable age, and Criminal Responsibility.
2. Discuss fully the signs and symptoms, treatment and post-mortem appearances in a case of poisoning by Arsenic.
3. How would you proceed to examine in a case of alleged Rape of a girl ten years of age?

SECOND HALF.

Examiner—RAI BAHADUR DR. LALBIHARI GANGULI, M.B.

1. In a case of Rupture of the Spleen, how would you determine—
 - (a) whether the rupture was caused by violence or otherwise ;
 - (b) if by violence—was it homicidal or accidental ?
 - (c) whether the rupture was caused before or after death ?
2. How does poisoning by *Nerium Odorum* arise ? What is its active principle ? Describe the signs, symptoms and treatment of such poisoning.
3. What is death by “ Suffocation ” ? Mention its causes. Describe the post-mortem appearances of homicidal suffocation, the victim being an adult male.

HYGIENE.

Only TWO questions from each half are to be answered.

Candidates are required to give their answers in their own words as far as practicable.

Equal value is attached to each question.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—DR. C. A. BENTLEY, M.B., D.P.H.

1. You are asked to organize a campaign against malaria, by the method of quinine distribution, in a small town of about 3,000 population, with a spleen index of 30%. Describe in detail what arrangements you would make, and give a rough estimate of the cost.
2. Describe in minute detail the sanitary defects of—
 - (a) any school in which you have read ;
 - (b) any house, mess, or hostel in which you have lived ; mentioning in each case the special dangers to health likely to occur.
3. What do you mean by (a) disinfection, (b) deodorisation, (c) sterilization ? Mention examples of each. Would you employ disinfectants in the case of (1) plague and (2) malaria ? If so, what form should they take ?

SECOND HALF.

Examiner—DR. TARAKNATH MAJUMDAR, L.M.S., D.P.H.

4. Suppose you are appointed a Health Officer of a small town in Bengal with a population of 10,000 persons. The water-supply of the town is by means of tanks and wells, and is found to be both inadequate

and impure. The nearest river is at a distance of 10 miles from the town. Draw up a scheme for the supply of pure water for the town, taking into consideration that the funds at your disposal are moderate. Describe what special precautions will be taken by you for the protection of the water-supply of the town, when there is an epidemic of cholera in an adjacent village.

5. What do you understand by the term "Carriers"? Mention the diseases which are transmitted through carriers. Describe briefly the preventive measures which should be taken in these diseases so as to prevent the spread of infection through carriers.

6. Assuming that all known means of efficient disinfection are at your disposal, how would you proceed to disinfect (1) woollen materials found in the room of a small-pox patient, (2) discharges of a typhoid patient, (3) valuable manuscripts and books, (4) a brick-built room recently occupied by a small-pox patient, (5) blankets and bedlinen of a patient suffering from tuberculosis of lungs?

Preliminary Examination in Law.

JANUARY, 1918.

JURISPRUDENCE.

Paper-setter—B. K. ACHARYYA, Esq., B.A., LL.B.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Only FOUR questions to be answered in each half.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners— { B. K. ACHARYYA, Esq., B.A., LL.B.
P. CHAUDHURI, Esq., M.A.

1. State and explain Holland's definition of "Jurisprudence." 10
2. "Law has been for centuries described as a 'command,' but this description, though essentially true, is inadequate to the extent of being misleading."—*Holland*. Discuss. 10
3. What do you understand by "Substantive Law" and "Adjective Law"? Mention Holland's classification of Substantive Private Law. 10
4. Define and mention the requisites of a "juristic act." 10
5. "A right which is at rest has to be studied with reference to its 'orbit' and its 'infringement.'" Explain. 10
6. "The object of a developed system of law is the conservation, whether by means of the tribunals or of permitted self-help, of the rights which it recognizes as existing."—*Holland*. Elucidate 10
7. "The Law of nations is but private law 'writ large.'" Develop. 10

SECOND HALF.

Examiners— { BIJANKUMAR MOOKERJEE, M.A., M.L.
ATULCHANDRA GUPTA, Esq., M.A., B.L.

8. Mention and discuss the agencies by which Law is brought into harmony with society. 10
9. "The movement of the progressive societies has hitherto been a movement from status to contract." Comment. 10

10. "The fate of the Hindoo law is, in fact, the measure of the value of the Roman Code." Explain. 10

11. "The more archaic the Code, the fuller and the minuter is its penal legislation." Elucidate. 10

12. "The English constitution as we find it to-day is, in fact, the product of a gradual development, and it would not be reasonable to suppose that the final stage of that development has been reached, but rather that it will go on growing and expanding with the ever-widening circles of national and imperial life."—*Ridges*. Discuss. 10

13. "Conventions are ultimately dependent upon the laws of the land."—*Ridges*. Explain and illustrate. 10

14. What do you understand by: *Referendum*; *Writ of Habeas Corpus*; *Martial Law*; *Droit Administratif*; *Bill of Rights*? 10

ROMAN LAW.

Paper-setter—DR. S. C. BAGCHI, B.A., LL.B., LL.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

Only FIVE questions to be attempted in each half.

FIRST HALF.

Examiners—{ DR. S. C. BAGCHI, B.A., LL.B., LL.D.
R. S. BAJPAI, ESQ., B.C.L.

1. Give a short account of the Roman legislative assemblies at the end of the Republic. What opinions have been expressed as to the function and existence of the *Comitia Tributa*? 10

2. Give a short account of the Roman family system during the Regal period. What is Mommsen's theory of the gentilical relationship? 10

3. What is the essence of slavery according to Justinian? How does Buckland criticise the test of slavery as laid down in the Institutes? Give some examples of 'owner-less' slaves. 10

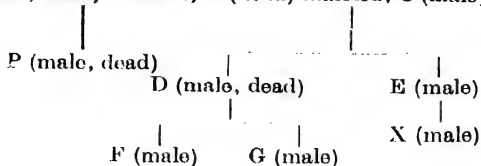
4. What were the essential conditions of Marriage in the time of Gaius? Write a note on *Connubium*. 10

5. Describe shortly the ceremony of adoption in classical times. What were the effects of adoption in the time of Justinian? 10

6. What is a consensual contract in Roman law? Illustrate your answer by a concrete example. X agrees to buy Y's horse; the conditions of the sale are to be put in writing; Y agrees, but sells the horse to Z before the conditions of the proposed sale to X are put in writing. Is the sale to Z valid in Roman Law? 10

7. How did Justinian modify the law of intestate succession ?
How would the property of A in the adjoining table be divided amongst his heirs ?

A (male, dead) married, B (dead) married, C (male, dead)



SECOND HALF.

Examiners— { S. C. RAY, ESQ., B.A., LL.B.
 { D. N. MITTER, ESQ., B.Sc., LL.B.

8. What proposition does Jethro Brown advance to illustrate the relation of State regulation to liberty ? Discuss in this connexion the question regarding the control of the unemployable. 10

9. "Puritanism achieved much, yet the vision of a Puritan State takes its place amongst the splendid illusions of history." Discuss this remark, noticing the causes of such failures. 10

10. What is the "organic theory" of the State ? What objections may be urged against such a theory ? 10

11. How should a practical legislator deal with pauperism (a) in England, (b) in India ? 10

12. How far would you support Prof. Jethro Brown's remarks on Class legislation ? 10

13. "I love my family better than myself ; my country better than my family ; mankind better than my country."—*Fénélon*. What would a modern legislator consider to be the bearing of this remark on the rights of the alien ? 10

14. Discuss briefly whether the economic issues involved in the Trust justify legislative interference. 10

HINDU LAW.

Paper-setter—MR. BRAJALAL CHAKRABARTI, M.A., B.L.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners--- { DR. NARESHCHANDRA SENGUPTA, M.A., D.L.
 { BRAJALAL CHAKRABARTI, ESQ., M.A., B.L.

1. Give the different sources of the Hindu Law as it is administered at the present day, and explain the origin of the different schools in the same. 10

Or,

Give the rules of interpretation by which a mandatory ordinance can be distinguished from an optional precept, and explain their application by reference to the case of the taking in adoption of an only son.

2. State the circumstances under which, according to the different schools, a widow is competent to adopt a son to her husband. In making an adoption does she act as an agent for her husband or does she act in exercise of an independent discretion of her own? 10

Or,

Explain the principle laid down in the case of *Tagore v. Tagore* as to the validity or otherwise of a gift in favour of an unborn person, and discuss how far the rule would apply to the case of a gift in favour of an idol to be consecrated after the death of the donor.

3. Explain the nature and extent of the power of the *karta* of a joint Hindu family in the management of the property of the family, and the extent of his liability to render an account to the other members. 10

Or,

Explain the nature of the interest a member of a joint Mitakshara family has in the property of the family, and discuss how far a sale or gift of the property made by him would be operative against the other members.

4. A Hindu had two wives, by one of whom he had one son and by the other he had two sons. He died leaving his mother, his two widows and his three sons surviving him. Upon a partition by the sons what would be the shares respectively of the mother and of each of the widows? 10

5. A creditor got a decree for money upon a simple bond against a member of a joint Mitakshara family composed of the debtor, his sons and his brother. Discuss how far it would be open to the creditor to realise his dues out of the joint family property, either when he attaches the property in execution in the lifetime of the debtor, or when he does so after the death of the latter. 10

SECOND HALF.

Examiners— { NAGENDRANATH MITTER, ESQ., M.A., B.L.
{ JYOTIPRASAD SARBADHIKARI, M.A., B.L.

6. Define the term *Bandhu* and state to how many degrees that relationship extends either for marriage or for succession. 10

Or,

Explain the cardinal principles that determine the order of succession in the Mitakshara and the Dayabhaga schools of Hindu Law and show, by reference to a concrete case, that their application sometimes leads to a divergence in the practical results.

7. Explain the reasons assigned by the different schools for putting the mother before or after the father in the order of succession. 10

Or,

Show how far unchastity affects the right of a female to inherit to her male relations, and discuss how far it debars the latter from inheriting to her.

8. Explain the meaning of the term *stridhan*, giving some of the important types of it and showing how far the course of the subsequent devolution of such property is determined by the nature of its origin. 10

Or,

Give the principal characteristics of an impartible estate and show how far it is liable for the debts of a previous holder of it.

9. Three daughters had inherited the property left by their father. One of them died leaving her surviving son and the two sisters, one of whom was a childless widow and the other had two sons.* On whom would the property left by her devolve? 10

10. A, a Hindu widow, borrowed money from B by mortgaging a portion of the estate she had inherited from her husband, and the transaction was assented to by C, who was then the presumptive reversionary heir of her husband. B got a decree on the mortgage and bought the property in execution. On the death of A, D, the actual reversionary heir, sued B for the recovery of the property. Discuss the rights of the parties. 10

BUDDHIST LAW.

Paper-setter—MR. MAUNG MAY AUNG, M.A., LL.B.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Answer only FIVE questions in each half.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—MR. MAUNG MAY AUNG, M.A., LL.B.

1. State the rules laid down by the Dhammathats as regards the wife's right to a divorce on the ground of her husband's desertion, and discuss the qualification laid down in *Thein Pe v. U. Pet.*

2. When does a Buddhist couple stand towards each other in the relation of *nissaya* and *nissita*? Explain how this relationship may affect (a) their ownership of *lettetpwa* property, (b) partition of *payin* property on a divorce by consent.

3. Examine, with reference to cases, the right of Buddhist husband to sell the joint property of himself and his wife without her consent or against her will.

4. "The law requires that Adoption shall not be a hole-and-corner matter." Comment. How would you prove the fact of an adoption?

5. Argue for and against the proposition that a *Kittima* son succeeds not only to the estate of his adoptive parents, but also to property left by the parents' relatives.

6. Have co-heirs a right of pre-emption in respect of divided property?

7. State and explain the principles of Buddhist Law with regard to *shinbyu* gifts.

SECOND HALF.

8. "An inheritance shall not ascend." Comment.

9. Where both husband and wife die at the same time or within a short interval of one another, and leave no issue or other descendants, the relatives on both sides inherit. Why is this so? Suggest (giving reasons) what should be the length of the 'short interval.'

10. *A* and *B* are a Buddhist couple who have one child *C*. After *C* attains majority, *A* dies. Can *C* claim a quarter of the parents' estate from *B*, if the latter (a) remains a widow or widower, (b) re-marries?

11. *A* married three wives in succession. On his death, he left three children, *B*, *C* and *D*, by his deceased first wife; one child, *E*, by his deceased second wife; and the third wife, *F*. His estate consists partly of property taken by him to the third marriage and partly of property jointly acquired during the continuance of the third marriage. To what shares are *B*, *C*, *D*, *E* and *F* entitled respectively?

12. *A* married two wives in succession and survived both. His heirs are four children by the first wife and two children by the second wife. His estate consists (1) of property inherited by him during the continuance of the second marriage, and (2) of property acquired by him after the second wife's death. How would you divide the estate among the children on *A*'s death?

13. Can an illegitimate son inherit the estate of his natural father, if the latter dies (a) unmarried, (b) leaving a widow but no legitimate children? If so, to what extent?

14. *A*, a bachelor, dies leaving two cousins—*B*, the son of *A*'s father's elder brother, and *C*, the daughter of *A*'s mother's younger sister. *A* had been living with *B*, and the latter tended *A* during his last illness and performed the funeral ceremonies. Who should succeed to *A*'s estate?

Intermediate Examination in Law.

JANUARY, 1918.

MOHAMEDAN LAW AND LAW RELATING TO PERSONS.

Paper-setter--MR. S. KHUDA BUKSH, M.A., B.C.L.

*Candidates are required to give their answers in their own words
as far as practicable.*

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners--} MR. S. A. KHUDA BUKSH, M.A., B.C.L.
 } MR. A. S. M. LATIFUR RAHMAN, M.A.

1. What are the sources of Mohamedan Law? What is the 10
general rule of interpretation of the Hanafi Law?

2. How is the property of a deceased Mohamedan to be applied? 10
To what extent is the heir of a deceased Mohamedan liable for debts
of the deceased? Illustrate your answer.

3. A Mohamedan dies leaving a widow, a daughter and two 10
sisters. After his death a suit is brought by a creditor of the deceased
against the widow and the daughter who alone are in possession of
the whole estate, and a decree is passed "against the assets" of the
deceased. Are the decree and the sale in execution of the property
left by the deceased binding on the sisters though they were not
parties to the suit?

Or,

A, who has a son B, makes a gift of his property to C. B,
alleging that the gift was procured by undue influence, sues C *during*
A's *lifetime* on the strength of his right to succeed to A's property
on A's death. Is the suit maintainable? State your reasons.

4. A Mohamedan dies leaving two sons and three daughters of a 10
uterine brother, and three sons and four daughters of a uterine sister.
What would each of these take?

Or,

A Mohamedan dies leaving a full brother's son's daughter and a
sister's daughter's son. Who will succeed? State your reasons.

5. Discuss the law of gifts with conditions, and illustrate your 10
answer

SECOND HALF.

Examiners— { MR. MANMATHANATH RAY, M.A., B.L.
 { MR. SASANKAJIBAN RAY, M.A., M.L.

6. A enters into a contract to serve B; C, with knowledge of the 10
 existence of the said contract, intentionally induces A to break his
 contract so as to cause loss to B. Can B sue C?

Or,

X was employed from day to day to do certain work for Y. Z,
 another servant of Y, objected to work with X on certain grounds
 and threatened to leave work unless X was dismissed. Thereupon Y
 dismissed X. Does action lie against Z?

7. What remedy has a British subject in respect of a claim made 10
 under a contract with the king or his servants acting in an official
 capacity?

Or,

What is the domicile of origin of a person? How does a person
 acquire a new domicile?

8. What is the period of minority (a) according to the English 10
 law, (b) according to the Indian Majority Act of 1875? How is the
 period computed?

9. Explain the expressions “King can do no harm” and “King 10
 never dies.”

10 In the case of a contest between the father and the mother 10
 for the custody of a boy aged five, who will be entitled to preference—

- (a) if the parties were Christians,
- (b) if they were Hanafi Mohamedans,
- (c) if they were Shiah Mohamedans?

Or,

Can a writ of Habeas Corpus be issued when a person has been
 interned without trial under the Defence of the Realm Statute?

LAW OF TRANSFER.

Paper-setter—MR. BIRAJMOHAN MAJUMDAR, M.A., B.L.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners— { MR. BIRAJMOHAN MAJUMDAR, M.A., B.L.
 { MR. J. W. CHIPPENDALE, M.A., B.L.

1. How far do the provisions of the Transfer of Property Act 10
 affect any rule of Hindu Law relating to transfers by act of parties?

Discuss whether a gift to an unborn person is valid under the Hindu Law.

2. What are the exceptions to the general rule that 'property of any kind may be transferred' ? 10

Discuss *either* whether (a) the right of pre-emption under the Mahomedan Law, or (b) the right to future maintenance of a Hindu widow, are transferable.

Or,

Explain the distinction between a vested interest and a contingent interest. Give an example of each.

X transfers a certain farm to Y on condition that Y shall murder her husband R. Is the transfer valid ?

3. Is the gift of an interest for life only to an unborn child valid ? 10 Give reasons.

A property is given to X for life and then to the eldest unborn son of Y when he will attain the age of 25. At the time of the death of X, the eldest son of Y attains the age of 20. Discuss whether the gift to the unborn son is valid.

4. State the principle of 'election' as laid down in the Transfer of Property Act. Illustrate your answer by an example.

A contracts to sell an estate to B and pays Rs. 1,000 in advance. Before conveyance, A sells it by a registered deed to C who has notice of the contract. What is the remedy which B has against either A or C.

Or,

Explain the doctrine of *lis pendens*.

Is a *bona-fide* purchaser for value without notice exempted from the operation of this rule ?

5. Discuss the principles laid down in *Lala Hakim Lal v. Mooshahar Salm*, I.L.R. 34 Cal. 999, as to fraudulent conveyances to defeat and delay creditors. Under what circumstances does the presumption in favour of the creditor that the transfer is made for such purposes arise ? 10

SECOND HALF.

Examiners— { MR. KARUNAMAY BASU, M.A., B.L.
 { MR. NAGENDRANATH GHOSH, M.A., B.L.

6. Describe briefly the influence of equity on the common law conception of a mortgage. 10

Give two examples illustrating how equitable mortgages may arise.

Or,

Distinguish between mortgage by conditional sale and English mortgage. Give examples.

What are the essential requisites of a valid mortgage under the Transfer of Property Act ?

7. Under what circumstances is a prior mortgagee postponed to a subsequent mortgagee ? Give two examples. 10

Or,

Distinguish between Marcelling and Contribution. Illustrate your answer by examples.

8. A suit for ejectment has been brought against a lessee on the ground of forfeiture for disclaiming the title of the lessor. After the institution of the suit, rent is accepted from the lessee by the plaintiff. The defendant takes the plea of waiver. Discuss whether the suit will fail on this ground. 10

Or,

State how a valid gift of immoveable property may be made under the Transfer of Property Act.

Under what circumstances may a gift be revoked ?

9. State the different classes of documents of which registration is optional under the Indian Registration Act. 10

What is the rule as to the admissibility of an unregistered document of which registration is compulsory under the above Act ?

10. A, in order to avoid certain creditors who obtained decrees against him, executed a deed of relinquishment in favour of B, alleging that the property belonged to the latter; the decrees were ultimately set aside on appeal. In the meantime B transferred 8 as. share of the property to C. A then sued B and C to recover possession of the property on declaration that the deed of relinquishment was a fictitious document which conveyed no title upon B, and consequently C also acquired no interest in it. It was found that C was not a bona-fide purchaser for value without notice. The High Court held that A was entitled to succeed. Justify or controvert. 10

REAL PROPERTY AND SUCCESSION.

Paper-setter—MR. J. W. LANGFORD JAMES, M.A.

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners—{ MR. J. N. MITTER, M.A.
DR. S. K. GUPTA, M.A., B.L., B.A., B.LITT.,
PH.D.

1. What are the essential elements in a mortgage ? What forms of it are recognized in British India, and by what names are they known ? How can it be effected ?

2. In what way are voluntary settlements of land liable to be defeated ? 10

Or,

How far can contractual rights and liabilities be permanently annexed to interests in land ?

3. Distinguish between joint tenancy and tenancy in common. 10
What right has one joint tenant to compel (a) partition, (b) sale of the joint property ?

Or,

What is meant by "covenants which run with the land"? What covenants run with the land (a) on an assignment of a lease, (b) on a sub-lease?

4. Explain by means of an example the rule in Shelley's case. 10

5. Write short notes on the following:— 10

(a) Tacking, (b) easement in gross, (c) contingent remainder, (d) *interisse termini*, (e) relief against forfeiture.

SECOND HALF.

Examiners— { MR. ASUTOSH MUKHERJEE, M.A., B.L.
DR. JADUNATH KANJILAL, M.A., D.L.

6. Define "Codicil," "Probate," "Executor de son tort," "Specific legacy," "Privileged will." 10

Or,

State and explain the scope and objects of—

(a) The Indian Succession Act,

(b) The Hindu Wills Act.

7. "A person taking under a Hindu will must either in fact or in contemplation of law be in existence at the death of the testator." Discuss the above. 10

Or,

State and discuss shortly the salient points in *Mirza Kussatulani v. Nawab Nuzhab-ud-Dowlah*, L.R. 32 I.A. 244.

8. T, the administrator of the estate of H, finds that it is necessary in the due course of administration of the estate to sell certain zemindary lands belonging to the estate. A is a possible purchaser. Advise A as to the purchase. Would your answer be different, and if so how, if T, instead of being administrator, was executor? 10

9. Answer one of the following:— 10

(a) W by his will bequeathed to B one of his estates (called Sultanpur) on the death of A. By a subsequent clause in the will W bequeathed the whole of his property to A. On A's death B claims Sultanpur from A's heir. Advise A's heir whether he should comply with the claim.

(b) A testator, by the first clause in his will, gives his estate of Ramnagar to S, and by the last clause gives it to R. Is S or R entitled to Ramnagar? Give your reasons.

10. Answer one of the following:— 10

(a) K by his will gives his house to B and the residue of his estate to C. K and B are both drowned in the same boat accident. Both B's heir and C claim the house. Whose claim should succeed? Give your reasons.

(b) A sum of money is bequeathed to A for his life and after his death to B; and after B's death, to such of the sons of B as shall attain the age of 25 years. A and B both survive the testator. Discuss the validity of the bequest to take effect after the death of B.

CONTRACTS AND TORTS.

Paper-setter—DR. SARATCHANDRA BASAK, D.L.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners—{ MR. JOGINCHANDRA DATTA, M.A., B.L.
MR. SAMATULCHANDRA DATTA.

1. "Past consideration is no consideration at all." Discuss. 10

Or,

Illustrate the distinction between 'penalty' and 'liquidated damages,' and state how the Indian Contract Act differs from the English law in this respect.

2. Discuss the assignability of contractual rights by act of parties. 10

Or,

"Notice to the agent is notice to the principal." Discuss.

Or,

3. Discuss the liability of the minor partner for the obligations of the firm. 10

Or,

Illustrate the principle relating to the communication of acceptance and of revocation of a proposal.

4. A person who is competent to contract being under the immediate necessity of raising money borrows it at an exorbitant rate of interest by mortgaging his properties, which are sufficient security for the loan. Can a court of equity relieve him from paying anything more than a reasonable interest? Give reasons. 10

5. A contracted to pay a sum of money to B on 2nd January 1848, but failed to pay the money on that day. B, in consequence of not receiving the money on the due date, was unable to pay his debts and was totally ruined. What would be the damages payable by A to B? Give reasons for your answer. 10

SECOND HALF.

Examiners—{ DR. SARATCHANDRA BASAK, M.A., D.L.
MR. RAJENDRACHANDRA GUHA, M.A., M.L.

6. Discuss the principle of contribution amongst co-sureties. 10

Or,

Write short notes on one of the following:—

- (a) *Smith v. Hughes*, L.R. 6 Q.B. 597.
(b) *Quinn v. Leatham*, (1901) A.C. 495.

7. "There are many acts which, though harmful, are no wrongful, and give no right of action to him who suffers their effects."—*Salmond*. Illustrate.

Or,

"Every injury imports a damage, though it does not cost the party one farthing." Explain.

8. Explain the distinction between 'absolute privilege' and 'qualified privilege' as a defence to an action for libel. 10

Or,

Discuss the conditions of liability in an action for malicious prosecution.

9. *A* is owner and *B* driver of a taxicab *X*; and *C* is owner and 10
D driver of another taxicab *Y*. *B* and *D* were both driving furiously and, in consequence of such rash driving, a collision took place between *X* and *Y* and a passenger *E* in the taxicab driven by *B* was hurt. Has *E* any remedy, and against whom? Give reasons.

10. The servants of a railway company illegally ejected *A*, a 10
passenger, from a railway carriage, whereby he lost a pair of opera-glasses which he left behind him in the carriage. Can *A* maintain any action against the railway company for the loss of his glasses? Give reasons for your answer.

Final Examination in Law.

JANUARY, 1918.

LAND TENURES.

Paper-setter—MR. SIBCHANDRA PALIT, B.L.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners—{ SURENDRANATH GUHA, ESQ., M.A., B.L.
GOPALCHANDRA DAS, ESQ., M.A., B.L.

1. (a) What considerations led to the enactment of Act XI of 1859 10
(Revenue sale law) ?

Or,

(b) What preliminaries have to be observed before an estate can
be sold under Act XI of 1859 ?

2. (a) What considerations led to the enactment of Regulation II 10
of 1793 ?

Or,

(b) What do you understand by—Zamindari, Lakhraj, Talook,
Istimrari mukarari ? What are the incidents attached to each ?

3. What do you understand by the term Abwab ? How did Ab- 10
wabs originate ? How has the realization of an Abwab been affected
by several enactments ?

4. What are the rights and liabilities of a putnidar under Regula- 10
tion VIII of 1819 ? What are his rights with regard to Chakran lands,
situated within the Putni, resumed by Government and transferred
to the zamindar ?

5. "The right of fishery when once created by Government is for 10
ever enjoyable only in waters that continue to flow precisely over the
ground which was in the Crown at the date of the grant." Discuss
the proposition, supporting your answer by authorities.

SECOND HALF.

Examiners—{ SIBCHANDRA PALIT, ESQ., B.L.
CHARUCHANDRA BISWAS, ESQ., M.A., B.L.

6. (a) What are the tests by which you can say that a tenant is a 10
tenure-holder or a raiyat ? Can a raiyat change his status to that of
a tenure-holder, and *vice versa* ? Give reasons for your answer.

Or,

(b) What are the rights of a settled raiyat? How is the *status* of a settled raiyat acquired? Are all occupancy raiyats settled raiyats? Can a raiyat at fixed rate ever be an occupancy raiyat? Give reasons for your answer.

7. (a) What do you understand by Khamar lands? A holds a piece of Khamar land under an ijara lease for a term of years. He lets it out to B who actually cultivates the land for 13 years. The lease of A then terminates. The landlord under whom A held brings a suit to turn out B. Discuss the rights of the parties to the suit. 10

Or,

(b) How are the incidents of the tenancy of the homestead land of a raiyat held not as a part of his holding regulated? Is his position affected if he holds the homestead under a landlord different from the person under whom he held the agricultural lands? Give reasons for your answer.

8. What is the law with regard to devolution of rights of occupancy? 10

A, a raiyat, having a non-transferable right of occupancy in a piece of land leaves it to B by a will. On A's death his legal heir C takes possession of the land. B brings a suit against C for recovery of possession. Discuss the respective rights of B and C, supporting your arguments by authority.

9. "Rent is a first charge on the holding or tenure." What do you understand by it? A is the owner of a putni. B holds a jama of certain lands within the putni under A. A brings a suit for rent against B and obtains a decree. The next year the putni is sold under the Putni Regulation and purchased by C. Thereafter A executes his decree and prays for the sale of the holding of B. Can he do it? Give reasons for your answer, supporting it by authority. 10

10. Under what circumstances can the owner of a dominant tenement succeed in an action for damages for infringement of his right of light possessed by him in respect of the tenement? Support your answer by authority. 10

EQUITY.

Paper-setter—ARTHUR BROWN, ESQ., M.A., LL.B.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners—{ ARTHUR BROWN, ESQ., M.A., LL.B.
{ M. N. BOSE, ESQ., M.A.

1. "There were two inventors of uses, fear and fraud."—(Coke). Comment. 10

Or,

Contrast and compare (a) the object, (b) the effect, of the Statute of Uses.

2. In proceedings which formerly came within either (a) the exclusive, (b) the concurrent, (c) the auxiliary jurisdiction of the Court of Chancery, on what principles did the Court proceed in deciding: (1) whether the suit could be maintained, (2) what remedies should be given. 10

Discuss the extent to which these principles have been affected by the Judicature Acts.

Or,

Under what circumstances will the Court decree Specific Performance? 10

3. State the extent to which Equity is specially favourable to Charitable Trusts. 10

Or,

Under what circumstances can a trustee who has replaced a trust fund which had been lost through a breach of trust obtain contribution or indemnity from (a) a co-trustee, (b) a cestui que trust?

4. A is the trustee of two separate trust properties, X and Y. The cestuis que trust are B and C respectively. In May 1916 A overdraws his account at his bank, Z, to the extent of £1,000. The bank presses him in the matter, and in June 1916 he sells X and pays the proceeds, viz. £2,000, into his private account at Z. In July 1917 he sells Y and in like manner pays the proceeds, viz. £3,000, into his private account. The bank knows nothing of the fraudulent nature of these transactions. In August 1917 A draws cheques on Z to the total extent of £1,500, and shortly after he dies. His account at Z is his only asset. Discuss the legal situation as between B, C, and Z. 10

5. In 1884, A, who is the owner of the estate X, sells Y, a portion of the estate, to B in fee simple. In the conveyance B covenants for himself, his heirs and assigns that he will not open a shop on Y. Shortly afterwards B goes abroad and dies. In 1886 C occupies Y without any title thereto, but subsequently acquires a title under the Statutes of Limitation. In 1916 C sells Y to D, D accepting C's title under the Statutes of Limitation. Neither C nor D know anything of B's original covenant. D opens a shop on Y. E, who has succeeded to X as A's heir, consults you as to whether he has any remedy against D. Advise him. 10

SECOND HALF.

Examiners—{ P. N. DUTT, ESQ., M.A., B.L.
P. K. CHAKRABARTI, ESQ., M.A.

6. Write notes on the application of two of the following maxims:— 10

(a) "Equity follows the law."

(b) "Prior tempore, potior jure."

(c) "Vigilantibus non dormientibus subvenit aequitas."

Or,

How does Equity deal with misdescription in a contract of sale?

7. Discuss the principle in *Penn v. Baltimore*. 10

Or,

State the doctrine of Election and discuss the principle involved.

8. Discuss fully the equitable presumptions in favour of ademption and satisfaction respectively, distinguishing carefully between them. 10

Or,

Write notes on the position at Law and in Equity of

- (a) a mortgagor in possession,
- (b) a mortgagee out of possession.

9. A dies in 1916, leaving as heir B. His property comprises the fee simple estates of Whiteacre and Blackacre, worth £800 and £1,000 respectively, certain smaller fee simple property worth £500, and personalty worth £2,000. He has, however, mortgaged Whiteacre and Blackacre for £1,000 and £800 respectively and has incurred in addition unsecured debts to the extent of £1,500. After A's death a will is discovered in which he leaves to C Whiteacre, to D Blackacre, to E a legacy of £700, to F the rest of his personal property, and to G his residuary realty. 10

How will A's assets be actually distributed? What difference would have been made in the distribution, had A have left unmentioned in his will his residuary realty?

10. X mortgages his house to Y. The mortgaged deed contains provisions to the following effect:— 10

- (a) X shall employ Y's son, who is a qualified doctor, as his medical adviser.
- (b) If X does not pay Y his interest punctually, he shall pay compound interest.
- (c) If X wishes to sell his interest in the house, he shall let Y have the first refusal.
- (d) X shall not pay the mortgage off for a period of ten years, but Y may require repayment at any time on giving three months' notice.

Discuss the validity of these provisions.

EVIDENCE AND CIVIL PROCEDURE.

Paper-setter—MR. JOGENDRANATH MUKERJEE, M.A., B.L.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners—{ HEMENDRANATH SEN, ESQ., M.A., B.L.
JOGESCHANDRA DE, ESQ., M.A., B.L. }

1. Explain any five of the following terms and expressions:—
“Fact,” “Facts in issue,” “Evidence,” “Proved,” “Disproved,”
“Conclusive Proof,” and “Document.” 10

2. Explain the following statement:—

10

“The evidence adduced in Courts of Justice being, as it were, a handmaid to jurisprudence, might be expected to partake of the nature and follow the law of the science to which it is ancillary.”—
(Best).

Or,

Explain the two-fold grounds of irrelevancy stated by Best in his book on Evidence. What relation do these grounds bear to the principle of law which requires that the best evidence is to be adduced?

3. What facts can a Court presume without proof, with regard to— 10

- (a) any document more than 30 years old, which is produced from proper custody;
- (b) maps and plans purporting to be made under the authority of Government;
- (c) any published map or chart, the statements of which are relevant facts, and which is produced for the Court's inspection?

Or,

Determine the meaning of the word “intentionally” in Section 115 of the Indian Evidence Act:—

“When one person has, by his declaration, act, or omission, *intentionally* caused or permitted another person to believe a thing to be true, and to act upon such belief, neither he nor his representative shall be allowed, in any suit or proceeding between himself and such person or his representative, to deny the truth of that thing.”

How has this word “intentionally” been explained by the Judicial Committee of the Privy Council in the case of *Sarat Chandra Dey v. Gopal Chandra Laha* (I.L.R. 20 Cal. 296)?

4. A institutes a civil suit against B, for the recovery of a property X, which, A alleges B sold to him along with other properties, by a conveyance which has accidentally omitted to mention the property X, but in which conveyance a blank space has been left which, it is alleged by A, B intended to fill up by inserting the description of the property X. A says that he holds letters from B, showing that he intended to convey to him (A) the property X, along with the other properties mentioned in the deed. Can A prove those letters in his suit against B, in support of his contention? Give reasons for your answer. 10

Or,

A, as executor to the estate of X, by virtue of his last will and testament, has brought a suit against B for recovery of damages for trespass on land belonging to the estate of X. B denies that A is executor of X's will, and avers that there is a public right of way over the land in suit, and that it does not belong to the estate of X.

In this suit, A produces—

(a) an order of the District Judge concerned appointing A executor of X's last will and testament;

(b) a judgment in favour of X in a suit which X brought in his lifetime against C for alleged trespass on the same land, and in which C pleaded the existence of a public right of way over it.

And B produces—

(c) a judgment dismissing a suit which D had brought against Y or recovery of possession of the same land, on the allegation that Y had wrongfully dispossessed him (D) of the land.

Are these judgments, or any of them, and the order appointing *A* executor of *X*'s will, relevant to the suit brought by *A* against *B*? If so, which of them, and why?

5. Analyse and illustrate the decision of the Judicial Committee in the case of *Secretary of State for India v. Krishnamani Gupta*, L.R. 29 I.A. 104. 10

SECOND HALF.

Examiners—{ SASADHAR RAY, ESQ., M.A., B.L.
JOGENDRANATH MOOKERJEE, ESQ., M.A., B.L.

6. Define the term "decree," and classify decrees.

A sues *B*. *B* takes among other defences the plea of res judicata. 10
The Court (a) decides that the matter is not res judicata and directs a trial of the other issues, (b) decides that the matter is res judicata and dismisses the suit. Does the decision in either case constitute a decree?

7. *A* sues *B* to recover certain land from him, alleging that *B* held 10
the land under a lease and that lease had expired. The lease is not proved and the suit is dismissed. *A* then sues *B* to recover the same land on the strength of his title. Is the suit barred by res judicata? Give reasons.

Or,

A sues *B* to recover certain property belonging to the estate of *C*, alleging that his father had been adopted by *C*'s brother *D* to whom the property descended on *C*'s death. The suit is dismissed on the ground that the adoption is not proved. *A* then sues *B* to recover the same property, claiming it as *C*'s *bandhu*. Is the suit barred by res judicata? Give reasons.

8. Specify the circumstances in which proceeds of execution sale 10
can be rateably distributed among several decree-holders.

X obtains a decree for money against *B*. *Y* obtains a decree for money against the legal representative of *B* after the death of *B*. Does the principle of rateable distribution apply as between *X* and *Y*?

9. Illustrate the nature of the power of a Court to order amend- 10
ments, by special reference to the decision in *Chhayemunnessa v. Basirar*, I.L.R. 37 Cal. 399.

Or,

Illustrate the principle of inherent power of a Court to do justice, by special reference to the decision in *Hukum Chand v. Kamalanand*, I.L.R. 33 Cal. 927.

10. Illustrate the principle of restitution by reference to one lead- 10
ing decision.

Or,

Explain the statement that "part-payment is only a mode of acknowledgment or admission from which a new promise to pay the remainder may be implied," and consider specially the effect of payment of interest by the principal debtor on liability of the surety.

CRIMINAL LAW.

Paper-setter—MR. BANKIMCHANDRA SEN, M.A., B.L.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners—{ HARAPRASAD CHATTERJI, ESQ., M.A., B.L.
BANKIMCHANDRA SEN, ESQ., M.A., B.L.

1. To what extent is insanity a valid plea against an offence ? 10

Or,

To what extent is an abettor liable when the person abetted does an act different from the act abetted ?

2. Discuss the validity of a plea of the right of private defence in either of the following cases :— 10

(a) *A* plucks mangoes from *B*'s garden, whereupon *B* comes and strikes *A* with a lathi on the head causing grievous hurt.

(b) *A*'s property is sought to be attacked by a bailiff. *A* resists the bailiff, and, in doing so, assaults him.

3. Take *any five* of the following cases and state what offence *A* would *prima facie* be guilty of, and why. 10

(a) *A* removes *B*'s box from the custody of *B*'s servant.

(b) *A* fabricates a hand-note in *B*'s name with intent to sue *B* upon it.

(c) *A*, with a drawn sword in hand, threatens *B* and compels him thereby to deliver up his purse.

(d) *A*, in a letter to *B*, describes *C* as a liar.

(e) *A* finds a gold ring lying on the road, and having picked it up, sells it off at once and appropriates the sale proceeds.

(f) *A* gets into a consultation with *B* and *C*, as the result of which they all decide to commit theft in *D*'s house.

(g) *A* enters *B*'s room, although previously warned by *B* not to do so.

4. Briefly discuss the chief principles of law laid down in either of the following two cases :— 10

(1) *Barindra Kumar v. Emperor*, I.L.R. 37, Cal. 467.

(2) *Pulin Behary Das v. King-Emperor*, 15 C.L.J. 517.

5. What are the conditions of criminality under the English Law ? 10

SECOND HALF.

6. Under what circumstances can more persons than one be jointly tried ? 10

Or,

Under what circumstances can a person be tried for more offences than one at the same trial ?

7. What are the different modes in which a magistrate can take cognisance of an offence ? 10

Or,

What is the procedure a Magistrate should adopt on receiving a complaint ?

8. Discuss the legal effect of the procedure adopted in *any two* of the following cases :— 10

(a) A magistrate convicts an accused in a warrant case without drawing up a formal charge.

(b) A magistrate commits an accused to the Court of Session without being empowered to do so.

(c) A magistrate at Hooghly tries and convicts an accused for an offence committed within the local jurisdiction of the District of Burdwan.

(d) A magistrate tries an accused for robbery under the summary procedure and sentences him to rigorous imprisonment for six months.

9. When can a magistrate take action in cases of dispute concerning immovable property ? Give a brief synopsis of the procedure to be adopted in such cases. 10

10. Give a brief history of the law relating to Principal and Accessory under the English system. 10

Preliminary Examination in Law.

AUGUST, 1918.

JURISPRUDENCE.

Paper-setter—MR. PRAMATHANATH CHAUDHURI, M.A.,
Bar.-at-Law.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

Answer any FIVE of the questions in each half.

FIRST HALF.

Examiners— { PRAMATHANATH CHAUDHURI, ESQ., M.A.,
Bar.-at-Law.
S. N. DUTTA, ESQ., M.A., LL.B.

1. Jurisprudence has been defined as “the formal science of positive law.” Explain and discuss the above definition. 10
2. Define rights *in rem* and rights *in personam*. State the heads under which rights *in rem* have been classified. 10
3. State and criticise Savigny’s analysis of a contract. 10
4. Analyse the notion of ownership, and explain the relation between possession and ownership. 10
5. Distinguish torts from crimes and state their early history. 10
6. Distinguish between “rights at rest” and “rights in motion.” Give illustrations. 10
7. “International law is private law writ large.” Explain fully the above proposition. 10

SECOND HALF.

Examiners— { ATULCHANDRA GUPTA, ESQ., M.A., B.L.
BIJANKUMAR, MUKHERJEE, ESQ., M.A., B.L.

1. What is a “legal fiction”? Explain, with illustrations, why it is considered as one of the agencies by which Law is brought into harmony with society? 10
2. State Maine’s theory about the origin and growth of “jus gentium” and its relation to the Stoic doctrine of “jus naturale.” 10

3. Trace the origin and growth of the Roman law of testamentary succession, and explain what is meant by "universal succession." 10
4. State shortly the history of the development of the Roman law of contracts and give a short account of the main divisions into which the Roman contracts were classified, keeping in view their historical order. 10
5. Describe the main features and explain the fundamental principles of English Constitution. 10
6. Write short notes on any two of the following cases :— 10
 - (1) *Ex parte Marais*
 - (2) *Beatty v. Gillbanks*.
 - (3) *Bushell's case*.
7. What is codification? Discuss its effects on the character and growth of a national system of law. 10

ROMAN LAW.

Paper-setter—MR. S. C. RAY, B.A., LL.B.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Answer only FIVE questions in each half.

FIRST HALF.

Examiners— { S. C. RAY, ESQ., M.A., LL.B.
 { D. N. MITTER, ESQ., M.A., LL.B.

1. Describe shortly the legal work of Justinian, making notes on the various materials used by him. 10
2. What were the different ways in which a person could become a slave in Rome? How could the master make his slave a freed man? 10
3. With regard to acquisition of property, describe the rule of Principal and Accessory in the following cases: (a) Where a tenant for life was in possession of the property, (b) where A melts his silver together with B's gold, (c) where C paints on D's tablet, (d) where X builds on his own land but uses some materials of Y's. 10
4. Illustrate the different ways in which a Roman will might wholly fail so as to produce intestacy. 10
5. Write short notes on (a) *expensilatio*, (b) *commodatum*, (c) *restitutio in integrum*, (d) *solutio indebiti*. 10
6. Describe the incidents of the delict of an "aggravated outrage." 10
7. What are the different parts of a Formula? Illustrate them and show how this system worked. 10

SECOND HALF.

Examiners—{ BABU KARUNANAY BASU, M.A., B.L.
S. M. BASU, ESQ., M.A., LL.B.

8. "Most people agree that human Governments have failed to secure social justice." Do you support this statement? Give your reasons, with special reference to the subject of militarism. 10

9. Show how legislation in England during the 19th century was at first influenced by the doctrine of *Laissez faire*, and explain the circumstances which later on made a large measure of State control absolutely necessary. 10

10. "We are not so much concerned with the dead letter of edicts and of statutes as with the living thoughts of men." Trace in outline these 'living thoughts of men' in the 19th century, showing the development of the social life and thought of the period. 10

11. On what fundamental principle would you base the right of the State to exercise control over the individual? Give your reasons. 10

12. Write a short note on Industrial legislation, with special reference to the subject of competition. 10

13. Discuss the question of Capital punishment. 10

14. Deal with the problem of Unemployment, stating how the remedies should differ under different circumstances. 10

HINDU LAW.

Paper-setter—DR. DWARKANATH MITTER, M.A., D.L.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiners—{ C. C. BISWAS, ESQ., M.A., B.L.
HIRALAL CHAKRABARTI, ESQ., M.A., B.L.

1. How is the term "Daya" understood by the author of the Mitaksara and Dayabhaga respectively? 10

Or,

"There is no such thing as succession, properly so called, in an undivided Hindu family." Develop this proposition. How far is this proposition true with regard to an undivided Hindu family governed by the Dayabhaga school of Hindu Law?

2. Discuss the liability of a son for the debts of his father charged upon ancestral estate, in a Mitaksara joint family, with special reference to decided cases. 10

Or,

Discuss the question whether under the Mitaksara law self-acquired immovables are absolutely at the father's disposal or not, with special reference to decided cases.

3. Discuss the question whether the claim for maintenance is merely a liability which ought, in the first place, to be satisfied out of family property or an actual charge upon that property which binds it in the hands of the holders of the property. 10

Or,

(a) What are the rights of a widowed daughter-in-law to maintenance (i) against her father-in-law, (ii) against the heir in possession of his estate ?

(b) What are the rights of the mother on a partition of the estate left by the father among the sons ?

4. *G* died leaving a son *B*, and a widow *C*, to whom he gave an express authority to adopt in the event of his son's death. *B*, married, attained his majority, and died leaving a widow and no issue. *C* then adopted a son *R*, who sued *B*'s widow to recover the estate. Could her estate be divested by the subsequent adoption ? Give your answer with special reference to a leading case on the subject. 10

5. Discuss the nature of the widow's estate. Is it correct to speak of the widow's estate as being one for life ? 10

SECOND HALF.

Examiners— { ASUTOSH MUKHERJEE, ESQ., M.A., B.L.
HARICHARAN GANGULY, ESQ., M.A., B.L.

6. State the principles laid down in the leading case of *Gurugovind v. Anund Lal*, 13 W.R.F.B. 49. 10

Or,

“A man can not create a new form of estate or alter the line of succession allowed by law for the purpose of carrying out his own wishes or policy.” Discuss this with reference to the case of *Tagore v. Tagore*, 9 B.L.R. 377.

7. Discuss the meaning of the term *Stridhan* according to (i) the *Dayabhaga*, and (ii) the *Mitaksara*. 10

Or,

A Hindu widow after succeeding to her husband's estate acquires immovable property with the saving from the income of the estate and treats such purchases as accretions to her husband's estate. Is she precluded from alienating the subsequently acquired property except on the ground of legal necessity ? Give reasons.

8. Discuss the question whether the estate of a widow, once vested, is or is not liable to forfeiture by reason of unchastity subsequent to the death of her husband, with special reference to a leading case on the subject. 10

Or,

“The power of the manager for an infant heir to charge an estate not his own is, under the Hindu law, a limited and qualified power. Develop. Refer to a leading case on the subject which you can think of.

9. The adoption of an only son having taken place in fact, is such adoption null and void under the Hindu law ? Discuss this question with special reference to the decision of the Judicial Committee of the Privy Council in *Sri Balusu Gaulingaswami v. Balusu Ram-lakhana*, I.L.R. 21 All. 460. 10

10. Where a Hindu widow mortgaged the estate of her deceased husband with the consent of the next reversioner for the time being, could this alienation be upheld on the theory of the acceleration of the estate of the reversioners ? Discuss this with special reference to the Full Bench decision in *Debi Prosad v. Golap Bhagat*, I.L.R. 40 Cal. 721. 10

Intermediate Examination in Law.

AUGUST, 1918.

MAHOMEDAN LAW AND LAW RELATING TO PERSONS.

Paper-setter—Z. R. ZAHID SUHRAWARDY, ESQ., M.A.; B.L.

Candidates are required to give their answers in their own words as far as practicable.

All questions are of equal value.

FIRST HALF.

Examiners—{ S. KHUDA BUKSH, ESQ., M.A., B.C.L.
A. S. M. LATIFUR RAHMAN, ESQ., M.A.

1. What are the sources of the Hanafi law and the rules of interpretation to be followed in case of difference of opinion among the 'master' and 'disciples'?

How far are the mufassil courts in Bengal and the High Court of Calcutta in its Original Jurisdiction bound to administer Mahomedan law?

2. Distinguish between void and invalid marriages. Illustrate your answer and discuss the legal effect and incidents of an invalid marriage.

Or,

What are agnate and cognate relations? Discuss the position they respectively occupy in the law of inheritance according to the Sunni and Shia schools.

3. Define *marazul-maut* and describe the tests generally applied to determine it. What is its effect on *hiba-bil-ewaz*, sale and acknowledgment of debt.

Or,

State the rules of Sunni and Shia law governing:—(a) bequest to an heir, (b) abatement of a legacy, (c) lapsing of a legacy.

4. A Mahomedan, who owes Rs. 10,000 to C, dies leaving two sisters S₁ and S₂ as his only heirs, and property worth Rs. 30,000. C obtains a decree for the amount of his debt against S₁ who is in possession of the whole estate of the deceased. D, creditor of S₂, with notice of C's claim obtains a decree against S₂ and purchases her share in a portion of the property in execution of such decree. Discuss the rights of C as against D according to the views and reasonings of the different High Courts.

5. Compare the Sunni and Shia law of inheritance as to the doctrine of 'Return.'

A Mahomedan dies leaving father, mother and a daughter. Distribute his estate according to the Sunni and Shia law respectively.

SECOND HALF.

Examiners—{ MANMATHANATH RAY, ESQ., M.A., B.L.
M. N. KANJILAL, ESQ., M.A., B.L.

1. Discuss legally and historically the claims of the present Royal family to the throne of England. What statutory limitation is there to the freedom of the descendants of the King in the matter of marriage? Quote the statute.

Or,

Give a summary of the law relating to natural-born and naturalised British subjects and the rights and disabilities of aliens.

2. Give a short history of legislation relating to contracts by a married woman so as to bind her separate estate.

Explain the terms 'marriage settlement,' 'restraint against anticipation,' 'tenant by courtesy.'

Or,

Summarise the English law relating to the rights of surviving husband and wife respectively in the other's property.

3. Describe the status of a child born out of wedlock according to the English and Mahomedan law.

A, a married woman, commits adultery with B and a child is born of the union. What is the legal presumption as to the status of the child, and how is such presumption to be rebutted according to the two systems of law?

4. When is the present state of the law relating to the liability of an employer for injury to a workman as such.

A workman gets leave from his work at nightfall and while returning home through the city of London, where all lights were put out by order of Government, is accidentally run over by a passing vehicle and injured. Discuss the employer's liability, if any, for such injury, giving reasons for your answer.

5. Comment on the common law doctrine that the servant undertakes the risks incident to the service. How far has the Legislature modified it in the case of a ship's crew?

LAW OF TRANSFER.

Paper-setter—JYOTIPRASAD SARBADHIKARY, ESQ., M.A., B.L.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiners—{ BABU BIRAJMOHAN MAJUMDAR, M.A., B.L.
NAGENDRANATH GHOSH, M.A., B.L.

1. What is an actionable claim? What is necessary for its valid transfer and for what purposes is notice of such transfer essential? 10

Or,

Mention some kinds of property which cannot be transferred. Discuss if the following are transferable: (a) right to sue for damages for breach of contract, (b) a contingent remainder, (c) right of a reversioner to inherit after a Hindu widow's death.

2. What are the conditions under which a property may be validly transferred to an unborn person? 10

Or,

"In the rule against remoteness, reference has to be made to possible and not to actual events." Explain. Is a gift to the unborn son of A, should he marry, valid? Give reasons.

3. What is the reason of the rule in regard to gift to a class (Sec. 15 of the Transfer of P. Act)? 10

X makes a gift in favour of A for life, afterwards to A's eldest son (unborn) for life, and then to B, a person in existence at the time of the transfer. Is the transfer to B valid? Give reasons.

Or,

A, a Hindu of Bengal, executed a deed of transfer in 1910 in favour of his grandson X and other grandsons to be born thereafter, and delivered possession to X. Discuss how far the transfer was valid. Would it make any difference if the deed was executed in 1917?

4. What is the reason of the rule in regard to the doctrine of *lis pendens*? Would the rule apply (a) to an involuntary sale, (b) to a transfer by a person who subsequently to the transfer is added as a party to the leading suit, (c) to a transfer after decree by the first court but before appeal against the decree is preferred? 10

Or,

When is a transferor precluded from pleading that his transfer was *tenami*? State how "good faith" in the section relating to fraudulent transfer (Sec. 53 T. of P. Act) is explained in the case of *Ishan Chander Das Sircar v. Bishu Sirdar*, I.L.R. 24 Cal. 825.

5. Explain and illustrate the difference between a vested remainder and a contingent remainder. Does the rule against Perpetuity apply to the former? A gift is made to A to be given to him at the age of 18. Does A take a vested or contingent interest? 10

SECOND HALF.

Examiners— { BABU JYOTIPRASAD SARBADHIKARY, M.A., B.L.
 { RUPENDRAKUMAR MITRA, M.A., M.L.

6. What is the rule of priority in English law between a legal and an equitable mortgage, *first*, when the equities are equal, and *second*, when the equities are unequal? 10

Or,

Define mortgage according to Common Law, Equity, and the Transfer of Property Act. What is the interest that is transferred according to the Transfer of Property Act in a simple mortgage, usufructuary mortgage and an English mortgage respectively?

7. Write a short essay on "Clog on the right to redeem," with special reference to the facts of the case of *Noakes & Co. v. Rice*. 10

Or,

Write a short essay on the doctrine of Subrogation, with special reference to the facts of the case of *Gokaldas Gopaldas v. Purnamal Premeekdas*, I.L.R. 10 Cal. 1035.

8. What is the interest that passes by a sale and a lease of immovable property respectively? Does ownership pass by a contract of sale of land accompanied with part payment? Is there any difference on this point in English Law? 10

Or,

What are the essentials of a valid gift? In the case of immovable property, is delivery of possession essential? When may a gift be revoked?

9. When is a lease determined by forfeiture, and what amounts to waiver of such forfeiture? 10

Or,

What is the effect of surrender and forfeiture respectively on under leases?

10. A land is sold to A for Rs. 200 by a deed executed in January; possession is delivered and the deed is registered in March. The same land is sold to B for Rs. 300 by another deed which is executed and registered in February of the same year. Whose title will prevail? 10

What is the effect of non-registration of a document whose registration is compulsory?

REAL PROPERTY AND SUCCESSION.

Paper-setter—DR. SURENDRANATH SEN.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiners— { P. MITTER, ESQ., *Bar.-at-Law*.
J. M. SENGUPTA, ESQ.

1. Explain the following:—

Primogeniture, as it obtains among the landed gentry of England, is a custom only and not a right. 10

Or,

A present right to an interest in property which may arise at a period beyond the legal limit, is void, notwithstanding that the person, entitled to it, may release it.

2. Explain five of the following terms:—

Estate tail, Gavelkind, Deed-Poll, Writ of Elegit, Equitable Waste, Joint tenants in tail, and An estate *pur autre vie*. 10

3. What are the restrictions imposed on the use of land in equity? 10

Or,

Can an estate tail be barred by Will or Contract? Give reasons for your answer.

Or,

Enunciate the rule laid down in Shelley's case as to estates in possession and in remainder.

4. Explain and illustrate the difference between a contingent remainder and an executory devise. 10

Or,

Illustrate, with special reference to the use of the terms *Property* and *Estate*, the truth of the following proposition:—"Popular notions of law often contain an element of truth, but they are rarely exact."

5. Where property is usufructuorily mortgaged, may the mortgagor lose his equity of redemption by lapse of time? Give reasons for your answer. 10

SECOND HALF.

Examiners—{ BABU UPENDRANARAYAN BAGCHI, M.A., M.L.
SARATCHANDRA LAHIRI, M.A., B.L.

6. What are the powers and duties of an executor? 10

Or,

What are the limitations imposed upon the Competency of a Hindu testator to bequeath his property?

7. Explain the following terms:— 10

Doctrine of Election, Bequest void for Uncertainty, Onerous bequest, Demonstrative legacy, and Unprivileged will.

Or,

Is an executor entitled to call upon the legatee to *refund* in the event of insufficiency of assets in the following two cases: (a) where the legacy has been paid by judicial order, and (b) where it has been paid voluntarily?

8. Do the provisions of the Probate and Administration Act create estoppel against the legal representatives of a Mahomedan testator? 10

Or,

A Hindu widow applies for probate of the will of her deceased husband. Can the application be opposed by a remote reversioner of her husband, who has no present interest in the estate of the deceased?

9. What is the legal position of a person, who, without being an executor, deals with the property as such? What is the measure of his liability, if any? 10

10. State the rules regulating the domicile of (a) an illegitimate child, (b) a married woman, and (c) a lunatic. 10

Or,

What are the rules for determining the construction of a will, which purports to make two bequests to the same person?

CONTRACTS AND TORTS.

Paper-setter—KUNWAR SINGH, ESQ.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiners— { DR. S. K. GUPTA, M.A., B.L., B.LITT., PH.D.
BABU SASANKAJIBAN RAY, M.A., M.L.

1. Comment on:—

10

“The specific mark of Contract is the creation of a right, not to a thing but to another man’s conduct in the future.”

Or,

“Consideration means not so much that one party is profited as that the other abandons some legal right in the present or limits his legal freedom of action in the future as an inducement for the promise of the first.”

2. State the theory of “Floating Obligation,” and show with reference to the case *Cartill vs. Carbolic Smoke Ball Company* or any other case you know, how the acceptance of an offer by advertisement may become real and binding in the eye of the law.

10

Or,

When do offer, acceptance and revocation, each made through the post respectively, become operative? Illustrate by means of examples.

3. What do you understand by “*Agreements by way of Wager*”? What, if any, force do such agreements possess? Do you know of any exceptions to the rule? How would you distinguish Contracts of Insurance from such agreements?

10

Or,

What are the legal consequences of Fraud or Coercion on Contracts? Explain the terms Fraud and Coercion as used in the law of Contract. Can these two grounds be pleaded (i) simultaneously, (ii) alternatively, by the defendant to defeat the plaintiff’s suit on a Promissory Note?

4. State the law relating to the joint or several liability of joint promisors.

10

A, B and C jointly promise to pay D the sum of Rs. 3,000. C is compelled to pay the whole, A is insolvent, but his assets are sufficient to pay one half of his debts. How much is C entitled to receive from A’s estate and B respectively?

Or,

What order is laid down by the law in which reciprocal promises are to be performed?

Goods are sold for “cash on delivery” and the vendor delivers a portion of the goods. The purchaser offers to pay the price thereof if certain cross claims set up by him are adjusted. Is the vendor entitled to refuse delivery of the remaining goods? Give reasons for your answer.

5. Under what circumstances may a Surety be discharged from suretyship ? 8

Or,

State the extent of Agent's authority (i) under ordinary circumstances, and (ii) in an emergency.

SECOND HALF.

Examiners— { DR. SARATCHANDRA BASAK, M.A., D.L.
 { BABU RAJENDRACHANDRA GUHA, M.A., M.L.

6. State precisely and give an example to show the extent to which a contractual liability incurred by one of the partners is binding on the others. 10

Or,

State the law relating to the duties of the Bailees in respect of the goods entrusted to their care. Is the Bailee liable for the loss by theft of the goods bailed ?

7. "The old-fashioned distinction between *Mala prohibita* and *Mala in se* is long since exploded." Illustrate this statement by means of one example. 10

Or,

What do you understand by the "Natural and probable consequence" of an act in Tort ? Give examples.

8. Discuss the master M's liability in *any one* of the following cases :— 10

(i) M, the owner of a horse and cart, left them unwatched in the street. Some children came up and began playing about the cart, and as one of them—the plaintiff in the suit—was climbing into the cart, another pulled the horse's bridle, the horse moved on and the plaintiff fell down under the wheel of the cart and was hurt.

(ii) M's horse escapes into a public road and kicks the plaintiff who is lawfully on the road.

(iii) M's horse, by reason of a defective gate, strays into an adjoining field where there are other horses belonging to the plaintiff and kicks one of those horses.

(iv) A carman was returning to his employer M's office with returned empties. A clerk of the same employer's who was with him induced him when he was near home to turn off in another direction to call at a house and pick up something for the clerk. While the carman was driving in this direction he ran over the plaintiff.

9. Enumerate the conditions excluding liability for acts *prima facie* wrongful; and explain and illustrate any one of them. 10

Or,

State the principles established in *Brown v. Kendall* or *Nitroglycerine* case.

10. Give examples to show what you understand by *any one* of the following terms as used in the law of Torts :— 10

(i) Contributory Negligence ;

(ii) Malice in law ;

(iii) Slander of Title ;

(iv) Act of State.

Final Examination in Law.

AUGUST, 1918.

LAND TENURES.

Paper-setter—DR. SURENDRACHANDRA SEN.

*Candidates are required to give their answers in their own words
as far as practicable.*

*Questions 6 and 7 are to be answered : of questions 1 to 5 answer
ANY THREE.*

All questions carry equal marks.

FIRST HALF.

Examiners—{ BABU SURENDRANATH GUHA, M.A., B.L.
DR. SURENDRACHANDRA SEN.

1. What rights were reserved by Government in favour of itself under the Permanent Settlement Regulation (I of 1793) ?

Or,

Give shortly the substance of the preamble to Regulation II of 1793.

Or,

What lakheraj grants were declared valid by Regulation XIX of 1793 ?

2. " Under the Putni Sale Law (Regulation VIII of 1819) a putni is sold free of all incumbrances that may have accrued upon it by act of the defaulting proprietor." Explain and illustrate this rule.

Or,

On what dates are applications to be made for the first sale and the mid-year sale under the Putni Sale Law ? and on what dates are the sales held ? Is it necessary to pay the whole of the advertised balance to prevent the mid-year sale ? If not, what portion of the arrears is to be paid ?

3. Who are entitled to—

(1) Lands gained by gradual accretion from the recess of a large navigable river, and what is the extent of interest of the person entitled to the increment ?

(2) Churs or islands thrown up in a large navigable river ?

(3) Churs thrown up in small shallow rivers ?

4. *A* is the proprietor of a revenue-paying estate. *B* dispossesses *A* and acquires a title to a part of the estate against *A* by adverse possession. *A*'s estate is sold for arrears of revenue under the Revenue Sale

Law (Act XI of 1859) and purchased by X. Is X entitled to recover from B the portion of the estate in regard to which he acquired a title by adverse possession against A? Give reasons.

Or,

What do you understand by "Common Registry" and "Special Registry," and what are the special advantages when tenures are so registered under the Revenue Sale Law? Give reasons.

5. What was the king's share of the produce of the land in Hindu times? What was the right which the king had in the lands comprised in his kingdom?

Or,

Explain the following expressions: *Mukarari* tenure, *chakran* tenure, *ghatwali* tenure, *khudkasi* raiyat, and *paikasti* raiyat.

6. Who is entitled to reformation on old site? State and discuss shortly the law laid down by the Privy Council in the case of *Lopez v. Madan Mohon Thakur*.

7. A co-tenant of a mine works it without the consent of the other co-tenant but without any assertion of hostile title. Is the co-tenant who works the mine accountable to the other co-tenant for the profits? State and discuss shortly the law laid down in *Mahes Narain v. Nawabad Pat-tack* (1 C.L.J. 437).

Or,

Shortly state the law laid down by the Privy Council in the case of *Srinath v. Dina Bandhu* (41 I.A. 221).

SECOND HALF.

Examiners— { DR. JADUNATH KANJILAL, M.A., D.L.
 { DR. NARESCHANDRA SEN GUPTA, M.A., D.L.

(Questions 6 and 7 are to be answered : of questions 1 to 5 answer ANY THREE).

All questions carry equal marks.

1. What are the different classes of tenants under the Bengal Tenancy Act? What is the distinction between a tenure holder and a raiyat?

Or,

What are the grounds of enhancement of rent of an occupancy raiyat?

2. What is an *abwab*? How do you distinguish an *abwab* from rent? Give illustrations. Is an *abwab* recoverable from a tenant? Give reasons.

Or,

What is the distinction between a rent-decree and a money-decree? Explain by giving illustrations.

3. What are the grounds upon which a tenant can make a deposit of rent in the Civil Court?

Or,

Does the Bengal Tenancy Act apply to the homestead holding of a raiyat when he holds the homestead otherwise than as a part of his agricultural holding as a raiyat? What is the law applicable to the incidents of his tenancy of the homestead?

Or,

When a tenure or holding is advertised for sale for an arrear of rent due thereon, a person having an interest therein *voidable upon the sale* may pay into Court the amount requisite to prevent the sale. Explain this statement and give illustrations. What is the meaning of the words "*voidable upon the sale*"?

4. "Nothing in this Act shall be deemed to prevent a proprietor or a holder of a permanent tenure in a permanently settled area from granting a permanent mukarrari lease on any terms agreed on between him and his tenant." (S. 179 of the Bengal Tenancy Act).

Explain this section and give illustrations.

Or,

What is the distinction between a settled raiyat and an occupancy raiyat?

5. Explain what are easements of necessity. What is the principle on which easements of necessity are founded?

Or,

How do you distinguish an easement from a license? Explain why public rights of way are not easements.

6. Does a person by the enjoyment of light for a period of twenty years acquire an indefeasible right to the enjoyment of a *like amount* of light in the future? State and discuss shortly the law laid down by the Privy Council in the case of *Paul v. Robson* (21 I.A. 180).

Or,

Is a non-occupancy raiyati holding heritable? Shortly discuss the law laid down in the case of *Midnapur Zemindary Co. v. Hrisikesh Ghosh* (I.L.R. 41 Cal. 1108).

7. In the case of a testamentary devise of a non-transferable raiyati holding, is the heir-at-law debarred by the doctrine of estoppel from questioning its validity? State and discuss shortly the law laid down in the case of *Amulyaratan Sircar v. Tarini Nath Dey* (I.L.R. 42 Cal. 254).

EQUITY.

Paper-setter—DR. S. C. BAGCHI, B.A., LL.B., LL.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiners—{ DR. S. C. BAGCHI, B.A., LL.B., LL.D.
H. S. SUHRAWARDY, ESQ.

1. What is meant by equitable jurisdiction? Explain how equity became a system. 10

Or,

Explain how equity supplements law.

2. Write a note on the term 'use.' Why did the Courts ignore uses in general? 10

Or,

“In charitable trusts a very wide sense is given to the word ‘charitable.’”—*Maitland*. Illustrate this remark by concrete instances.

3. “Equity will not assist volunteers.” Discuss. 10

4. I buy a fee-simple estate, and I say to the vendor, I want you to convey it not to me but to X. He conveys it unto and to the use of X. What presumptions may arise according as X is or is not related to me? 10

5. T held a fund upon trust to pay the income to the widow of X and divide the capital among the children of X. The widow is dead. All the children are of full age. T assigns to each child his share. What is the position of T after the assignment? 10

SECOND HALF.

Examiners— { B. K. GHOSH, ESQ.
R. S. BAJPAI, ESQ.

6. ‘Equity follows the law.’—Explain. 10

Or,

How far is possession notice of equities?

7. Explain the rule in Clayton’s case? 10

Or,

Explain shortly the doctrine of ademption of legacies by portions.

8. Explain the rule in *Mason v. Bogg*. 10

9. X gives by his will all his personalty to A, B and C in equal shares. A dies during X’s lifetime. Who will get the lapsed share of A, and how are the debts of X to be paid, supposing (a) A, B and C are not descendants of X, (b) they are X’s descendants. 10

10. X lends me money, and, in return, I write on a piece of paper, “in consideration of £1,000 lent to me by X, I agree to execute a proper mortgage of all any free-hold estates in the country of Y to secure the repayment of the said sum with interest at 4%.” Can X go to the court simply on the strength of this note and ask for foreclosure? 10

EVIDENCE AND CIVIL PROCEDURE.

Paper-setter—TARAKCHANDRA CHAKRABARTI, ESQ.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiners—{ SIR DEBAPRASAD SARBADHIKARY, KT., C.I.E.,
M.A., LL.D.
BABU JOGESCHANDRA DE.

1. "The Evidence Act adopts the requirements of the prudent man as an appropriate concrete standard by which to measure proof." 10

Explain and justify.

Or,

Discuss the merits of the system of judicial evidence which insists upon the *viva voce* examination of witnesses in open Court.

2. The final judgment of a Court in the exercise of its Probate jurisdiction decides (1) that the will was duly executed, (2) that the testator was not a tenant for life, (3) that A was not the testator's wife. 10
(4) that B, the executor named in the will, is a lunatic, and (5) that C is an executor by implication and, as such, entitled to probate. How far would this decision be regarded as a judgment *in rem*?

Or,

A, representing that he has inherited a property on the death of his uncle, induces B to purchase the same and pay the price. Thereafter the property is attached and sold in execution of a decree for money against A, and purchased by C who obtains possession. In a suit by B to recover the property from C, can the latter prove that at the time of the sale by A, the uncle was living and that he died just before the attachment?

3. (a) "Of things that do not appear and things that do not exist, the reckoning in a Court of law is the same." 10

Is it necessary to qualify the statement by any provision of the Evidence Act?

(b) How far is the statutory meaning of "Conclusive proof" retained in Sec. 112 dealing with legitimacy?

Or,

Indicate the nature of questions which even a willing witness would not be permitted to answer.

4. (a) Does ignorance in any case keep alive a right which would otherwise be extinguished by lapse of time? 10

(b) Is the running of the time prescribed for a suit ever suspended after it has once begun to run?

5. X, a minor, having been dispossessed of a zemindary on the 1st of September, 1906, sold through his guardian a portion thereof to an idiot Y, on the 5th of October, 1916, and died, while still a minor, on the 10th of November, 1917, leaving his mother Z to inherit the remainder. What would be the time allowed to Y and Z for in- 10

stituting suits to recover possession of their respective shares, the period of limitation being twelve years from the date of the dispossession ?

Or,

In a dispute arising on the re-appearance of submerged land, how would you deal with the period of submergence in connection with the question of discontinuance of possession or continuance of adverse possession, where both parties had successively held the land before it became submerged ?

SECOND HALF.

Examiners— { BABU HEMCHANDRA SEN, B.L.
 ,, TARAKCHANDRA CHAKRABARTI.

6. (a) Annotate :—

Cause of action ;
Point of substance
Right to begin ;
Cross-objection ;
Preliminary point.

10

(b) " The Code makes no provision for something which is neither a decree nor an order, nor for anything which is both."

Explain and illustrate.

7. The decision of a Munsiff against the validity of an adoption was reversed on appeal by the Subordinate Judge. In a subsequent suit between the same parties, and before the same Subordinate Judge, an issue as to the adoption is again raised. Every other condition being satisfied, would the final judgment in the previous suit operate as a bar to the trial of the issue ?

Or,

In a suit between two brothers *B* and *C*, it was decided that the latter, having killed his father *A*, had not share in the paternal estate which was inherited by *B* alone. Afterwards *C* and his son *D* institute a suit to recover the estate from *B* on the strength of a deed executed by *A* whereby the whole estate was given in equal shares to *C* and *D* to the exclusion of *B*. Consider the effect of the judgment in the previous suit.

8. (a) Who can apply for setting aside an execution sale ?

10

(b) Indicate the nature and distinction of the remedies available to a person aggrieved by a decree.

Or,

(a) How can a person assert his right in case of wrongful interference with his immoveable property in execution of a decree against his neighbour ?

(b) " A man should not be left quite destitute of getting a living for himself and his family."

How far does the Code recognize the principle ?

9. A plaintiff obtains a decree for possession on the basis of a lease. Pending an appeal by the defendant the lease expires. Would the Appellate Court, in dismissing the appeal, affirm the decree ?

10

Or,

A, the plaintiff, obtains a decree for possession of a house jointly occupied by *B* and *C*. On an appeal by *B* the decree is reversed and the suit dismissed. *A* files a second appeal in which *B* alone is the respondent. Can you take any preliminary objection to the hearing of the appeal?

10. How do you justify the decision in *Khیارajmal v. Diam* in view of the judgment in *Malkarjun v. Narhari*?

CRIMINAL LAW.

Paper-setter—MANMATHANATH MUKHERJEE, M.A., B.L.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiners— { BABU HARAPRASAD CHATTERJEE, M.A., B.L.
BABU MANMATHANATH MUKHERJEE, M.A., B.L.

1. What, according to the Indian Penal Code, are the meanings of the following expressions?— 10

‘Moveable property,’ ‘Wrongful loss,’ ‘Valuable security,’ ‘Criminal Force.’

When is a person said to make a false document?

2. (a) *A* finds a purse with money in it lying on a public road. He picks it up, keeps it for a few days and then spends the money for his own purposes. Under what circumstances would he be guilty of any offence, and under what circumstances not? 10

(b) *A*, intending that *X* may be killed, instigates *B* to put poison into the food of *X* and gives him poison for that purpose. *B*, in consequence of the instigation, by mistake, puts the poison into the food of *Y* which is by the side of that of *X*. *Y* takes the food but does not die.

What offences, if any, are *A* and *B* guilty of? Give reasons.

3. Indicate the essential points of difference between:— 10

- (a) ‘Wrongful restraint’ and ‘wrongful confinement.’
- (b) ‘Murder’ and ‘Culpable homicide not amounting to Murder.’
- (c) ‘Theft’ and ‘Cheating.’

Or,

Discuss the extent and limitations of the right of private defence of property.

4. To what extent are the following circumstances a good defence in a criminal action?— 10

- (a) Mistake of fact.
- (b) Intoxication.

Or,

(a) Unsoundness of mind,

(b) Infancy.

What are the conditions of Criminality in English Criminal Jurisprudence? 10

Or,

Give a short account of any English criminal case that you know of and briefly discuss the principles deducible therefrom.

SECOND HALF.

Examiners— J. BEROOAH, ESQ.
J. W. CHIPPENDALE, ESQ., M.A., B.L.

1. What are the respective functions of the Judge and the Jury in a Sessions Trial? 10

Or,

What are the powers of an Appellate Court in an appeal from a conviction?

2. (a) What do you understand by the expression 'Taking cognizance of an offence'? What are the ways in which a Court can take cognizance of an offence? 15

(b) What are the restrictions imposed upon a Court in the matter of taking cognizance of an offence of Criminal Conspiracy?

3. To which Court, and under what circumstances, would an appeal, if any, lie in each of the following cases?— 10

(a) From a sentence of three years' rigorous imprisonment passed by an Assistant Sessions Judge.

(b) From a sentence of three months' rigorous imprisonment passed by a Presidency Magistrate.

(c) From an order of acquittal passed by a Magistrate of the second class.

(d) From a sentence of whipping passed by a District Magistrate.

(e) From an order to give security for good behaviour passed by a Magistrate of the First Class.

Or,

Briefly discuss the provisions of the law dealing with prevention of offences relating to Disputes as to immoveable property.

4. What do you understand by the term 'Accomplice'? What are the provisions of the law relating to tender of pardon to an Accomplice? How may such pardon be forfeited? 10

Or,

State what would be the effect of a Magistrate doing the following things in good faith, but not being empowered by law in that behalf:—

(a) Trying an offender summarily.

(b) Withdrawing a case to his own file.

(c) Issuing a search-warrant.

(d) Demanding security for good behaviour.

5. Briefly describe the various steps that have to be taken under 10
the laws of England to bring an offender to justice, beginning from
the lodging of information and up to the commencement of the trial.

Or,

Give a short account of the important changes in the Criminal Law
of England since the days of the Revolution up to the present times.

I.C. Examination.

1918.

(Old Syllabus).

MATHEMATICS.

Examiners-- { DR. HARIDAS BAGHI, M.A., PH.D.
S. N. MAITRA, ESQ., M.A.
TULSICHARAN BOSE, ESQ., M.A.

FIRST PAPER.

TRIGONOMETRY AND MENSURATION.

*Candidates are required to give their answers in their own words
as far as practicable.*

FIRST HALF.

Answer any FOUR questions.

The questions are of equal value.

1. State Simpson's rule for determining the area of a curve.

Ordinates of a curve 1·5 inches apart are 2·30, 2·35, 2·46, 2·57, 2·42, 2·21, and 2·10.

Find the area between the first and last ordinates.

2. The radius of a circle is 12 ft. Find the length of the side of a polygon of sixteen sides inscribed in it. Calculations to be made to three places of decimals.

3. (a) Find the area of a segment of a circle in terms of the chord and the height.

(b) The span of a bridge, the form of which is an arc of a circle, being 96 ft., and the height 12 ft., find the radius.

4. A right-angled triangle, of which the sides are 5 and 12 inches in length, is made to turn round its hypotenuse: find the superficial area and the volume of the double cone thus formed.

5. What is a prismoid?

The bottom of a tank is a square whose area is 1 acre; its depth is 10 ft., and the side slopes are $1\frac{1}{4}$ to 1; find the number of cubic feet of water it would contain.

6. A sphere of 4 ft. radius has to have a cylinder of 2 ft. radius put through it centrally. Find the volume of the sphere that has to be cut out ($\pi = 3\cdot1416$).

SECOND HALF.

*Answer any FOUR questions.**The questions are of equal value.*

1. Multiply 283·456286 by 1·4321 by contracted methods (to three places of decimals); and shew, by general reasoning, that the product will not be affected up to the 3rd decimal place, when the multiplicand is increased or diminished by ·000013.

2. The formula

$$p = \frac{P}{\frac{a}{(2\cdot718)^{\frac{a}{25000}}}}$$

gives the atmospheric pressure p in lbs. per sq. inch at a height a ft. above sea-level, P being the pressure (in lbs. per sq. in.) at the sea-level. Calculate, with the help of a log table, the pressure of the atmosphere at Darjeeling, 7 800 ft. above sea-level. [Take the air-pressure at sea-level to be 15 lbs. per sq. in.]

3. Find the exact value of the series

$$\frac{1}{3} + \frac{1}{3^2} + \frac{1}{3^3} + \dots \text{ to } \infty,$$

and compare the errors introduced, if we stop at the 10th and 20th terms successively.

4. A survey-line is run 3·010 chains from A to B , and 7·224 chains from B to C . If the distance of C from A be 7·826 chains, prove that ABC is a right angle, and compute the other two angles BAC , ACB (to the nearest minute).

5. The number of cubic feet of gas delivered every hour by a gas-service pipe is

$$1090 \sqrt{\frac{d^5}{0\cdot45 L}},$$

where d is the diameter of the pipe in inches, and L is the length of the pipe in yards. What must be the diameter of the gas-pipe connecting the main to a house 75 ft. distant, so as to feed five burners, each consuming 5 cub. ft. of gas per hour?

[The result is to be correct to the 2nd decimal place.]

6. Write a short note on the system of *common* logarithms, and point out its special advantages. If an integer consists of N digits, prove that the characteristic of its logarithm is $N-1$.

Determine the number of digits in the expression

$$2^{31} \times 3^{14} \times 5^4.$$

[Use a log table to get the necessary logarithms.]

MATHEMATICS.

SECOND PAPER.

STATICS, DYNAMICS AND APPLIED MECHANICS.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Only THREE questions to be attempted.

The questions are of equal value.

1. Find the conditions under which three co-planar forces must act on a rigid body to keep it in equilibrium.

A uniform rod, 4 inches in length, is placed with one end inside a smooth hemispherical bowl, of which the axis is vertical and the radius $\sqrt{3}$ inches; shew that a quarter of the rod will project over the edge of the bowl.

2. Given the centre of gravity of a body and that of a part of it; find the centre of gravity of the remainder.

A uniform plate of metal, 10 inches square, has a hole of area 3 sq. inches cut out of it, the centre of the hole being 2.5 inches from the centre of the plate; find the position of the centre of gravity of the remainder of the plate.

3. Find the maximum horizontal range and the corresponding direction of projection for a particle projected with a given velocity under gravity.

A cannon ball is shot horizontally from the top of a tower 49 feet high, with a velocity of 2000 ft. per second. Find at what distance from the tower the cannon ball will strike the ground.

4. Determine the rate in H.P. at which an engine must be able to work in order to generate a velocity of 10 miles per hour on the level in a train of mass 69 tons in three minutes after starting, the resistances to the motion being taken at 10 pounds per ton.

5. A railway carriage moves on a circular curve; find to what height the outer rail must be raised above the inner so that there may be no lateral thrust on the rails if the radius of the curve be 1320 ft., the breadth between the rails 5 ft., and the carriage have a velocity of 45 miles per hour.

SECOND HALF.

Not more than THREE questions to be attempted.

6. Explain the terms;—stress, strain, Young's modulus, modulus of rigidity.

A mild steel bar, twelve inches long and 1.5 inches diameter, is subjected to a pull of 18 tons. If the extension is .0094 inch, find E .

7. A beam, span l ft., is simply supported at the ends and subjected to a uniformly distributed load of w tons per foot run. Find the maximum bending moment and draw the bending moment and shear diagrams.

8. Explain the terms :—Moment of inertia, and radius of gyration.

A cast-iron girder has an upper flange $2'' \times 1\frac{1}{2}''$, a lower flange $6'' \times 1\frac{1}{2}''$, and a web $7'' \times 1''$. Find its moment of inertia and radius of gyration about an axis through the centroid parallel to the flanges.

9. State the formulae for deflection in the following cases :—

- (a) Cantilever with load at free end.
- (b) Cantilever with uniformly distributed load.
- (c) Beam with load in the centre.
- (d) Beam with uniformly distributed load.

What will be the deflection of a $12'' \times 8''$ teak beam 8 ft. long under a transverse load of 8 tons distributed ?

$$E = 1728000 \frac{\text{lbs.}}{\text{in}^2}.$$

MATHEMATICS.

THIRD PAPER.

DIFFERENTIAL AND INTEGRAL CALCULUS.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

The questions are equal value.

Only SEVEN questions to be attempted, of which any three should be chosen from the First Half and any FOUR from the Second Half.

1. Find the radii, and the distance between the centres, of the circles

$$x^2 + y^2 + 2g_1x + 2f_1y + c_1 = 0,$$

$$x^2 + y^2 + 2g_2x + 2f_2y + c_2 = 0.$$

Express the fact that the distance between the centres may be equal to the sum or difference of the radii, and hence or otherwise obtain the condition of contact of the circles.

2. Taking the principal axes as axes of coordinates, express the equation of an ellipse in the form

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1.$$

Find the values of the constants a and b so that the ellipse may pass through two given points (x_1, y_1) and (x_2, y_2) . Under what condition will the conic pass through a third given point (x_3, y_3) ?

3. Define the *differential coefficient* of a function, and find the simplest value of the differential coefficient of each of the expressions :—

•(i) $1 + x + \frac{x^2}{2} + \frac{x^3}{3} \dots$ to infinity.

(ii) $28.5731 + \tan^{-1}x + \cot^{-1}x + \left(\frac{1 - \tan^2x}{1 + \tan^2x}\right)^2 + \left(\frac{2 \tan x}{1 + \tan^2x}\right)^2.$

4. Establish Maclaurin's theorem on the expansion of a function, and hence or otherwise expand

$$\sin x \text{ and } \sin (x + 60^\circ)$$

in powers of x .

[The first four terms are required in each case].

SECOND HALF.

5. Perform the following integrations:—

$$(i) \int \frac{dx}{x}; \quad (ii) \int x^n dx;$$

$$(iii) \int (x + x^2 + x^3 + \dots \text{ to } \infty) dx.$$

6. Explain the principle of *integration by parts*, and hence, or by any other method, evaluate the integral

$$\int_0^a x \sin x \, dx.$$

Prove that the integral will vanish, when a satisfies the relation $\tan a = a$.

7. Define Moment of Inertia.

Find the moment of inertia of a metal disc of mass m about an axis passing normally through its centre.

8. Evaluate:—

$$(i) (\sin x)^{\tan x}, \text{ when } x=0.$$

$$(ii) \frac{2x^3 - 3x^2 + 1}{3x^5 - 5x^3 + 2}, \text{ when } x=1.$$

9. Define eccentric angle of a point on an ellipse. Find the equation to the normal at any point on an ellipse in terms of the eccentric angle.

CHEMISTRY.

FOURTH PAPER.

Examiners— $\left\{ \begin{array}{l} \text{R. N. SEN, ESQ., M.A.} \\ \text{N. BRODIE, ESQ.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

Not more than THREE questions to be attempted in each half.

All questions carry equal marks.

FIRST HALF.

1. Write a short account of the Ionic Theory. Explain how the ionic theory accounts for the following :—

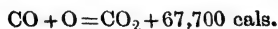
(a) magnesium hydrate is not precipitated by ammonia in presence of ammonium chloride ;

(b) by ordinary tests iron cannot be detected in potassium ferrocyanide solution, but aluminium can be detected in alum solution ;

(c) the solution of a salt like sodium carbonate gives alkaline reaction.

2. What is an explosion, and what are the best conditions for a violent explosion ?

Calculate the maximum theoretical pressure of explosion of a mixture (at N.T.P.) of 28 grams of carbon monoxide and 16 grams of oxygen from the following data :—



and the specific heat of $\text{CO}_2 = 0.15$.

3. Enumerate the chief sources from which the following metals are obtained : lead, zinc, tin, and copper. Describe briefly the methods by which any one of these is produced from its ores.

4. Describe the preparation, properties and uses of the following :—

Plaster of Paris, Soluble glass, Bleaching powder, and Red lead.

5. What are the most important pigments used in making white paint, and how are they obtained ? Discuss the advantages and disadvantages of each.

SECOND HALF.

1. Describe and explain the changes that occur when the following substances are freely exposed to the air :—

(1) Lead, (2) Caustic soda, (3) Sulphuretted hydrogen water, (4) Iron, (5) Linseed oil.

2. Describe and explain the process of manufacture and the industrial use of calcium carbide.

3. What are the principal harmful impurities found in boiler water ? Explain, giving equations,

(1) in what way they are harmful ;

(2) how they can be removed.

4. Give an account of the Chemistry of the manufacture of Portland cement. What sorts of natural limestone can be used after burning, as a substitute for Portland cement? Explain why pure limestone cannot be used in this way.

5. Describe and explain the effect of passing an electric current through a solution of copper sulphate.

PHYSICS.

FIFTH PAPER.

Examiners—{ S. N. MAITRA, ESQ., M.A.
TULSIDAS KAR, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Only FOUR questions to be attempted.

The questions carry equal marks.

1. Enunciate the First Law of Thermodynamics.

You are given card-board tube and a quantity of lead shots. Explain how would you arrange and perform an experiment with the help of these to verify the law in a rough and ready way.

2. Find the height from which a lump of ice at 0°C must fall so that it completely melts.

$$[g=981 \text{ ft./sec.}^2, J=4.2 \times 10^7 \text{ ergs.}]$$

3. Prove the following thermodynamic relations:—

(i) $pv^\gamma = \text{constant}$.

(ii) $E_\phi = \gamma \cdot E_t$,

where γ = ratio of the specific heats of a perfect gas and E_ϕ , E_t are its elasticities.

4. Establish the differential equation for the linear flow of heat along a bar when the 'steady state' is reached.

5. Describe and explain either Searle's or Forbes' method of finding the conductivity of a metal bar.

6. A wire whose resistance per centimeter length is .1 ohm is embedded along the axis of a cylindrical cement tube of radii .05 cm. and 1.0 cm. An electric current of 5 amps. is found to keep a steady difference of 125°C between the inner and outer surfaces. What is the conductivity of the cement, and how much heat must be supplied per centimeter length?

SECOND HALF.

Only THREE questions to be attempted.

The questions are of equal numerical value.

1. What is meant by the magnetic length of a magnet? Explain how it can be experimentally determined with the magnetometer, and prove the formula to be used.

2. State and prove Gauss's theorem on total normal induction, and apply it to prove that the flux of force is constant throughout a tube of force.

3. Describe any accurate method for measuring high resistances.

A battery of E.M.F. 50 volts is connected to a proportional galvanometer through a graphite resistance and the deflection and the galvanometer is noted. When a megohm is substituted for the graphite resistance, the galvanometer is to be shunted by a resistance of 50 ohms to get the same deflection as before. Calculate the value of the graphite resistance, the resistance of the galvanometer being 200 ohms.

4. The electrodes of a quadrant electrometer are connected to the terminals of a battery of 5 cells in series. In what ratio will the deflection of the needle be altered, if the electrodes are *also* jointed to the terminals of a battery of 3 cells in series similarly arranged, all the cells being alike, and the connecting wires thick?

5. State and explain Lenz's law on electromagnetic induction and show that it is consistent with the principle of conservation of energy.

Explain clearly why the oscillations of the coil of a moving coil galvanometer are damped by short circuiting the instrument.

SIXTH PAPER.

MATERIALS OF CONSTRUCTION.

Examiners— { D. R. G. TURNBULL, ESQ.
 { H. F. DAVY, ESQ.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

The questions are of equal value.

Only FOUR questions to be attempted.

What timbers are generally used in Bengal? Name them, mentioning works for which each is specially suitable.

2. What do you understand by the "Natural bed of a stone"? How should it be placed in a building? Give reasons for your answer.

3. What are the characteristics of First Class Bricks? How would you select them?

4. Describe Lime Stone. Can it be used as a roofing material? Give reasons for your answer.

5. What stones are suitable for Road Metal? Describe them, and state the sources from which Calcutta Engineers obtain them.

SECOND HALF.

FOUR questions only to be attempted.

All the questions carry equal marks.

1. What is the difference between a hydraulic lime, a natural cement, and a Portland cement? Name the materials from which Portland cement is made, and outline a process for manufacturing. Can Portland cement be made by an engineer in charge of construction if suitable materials are available?

2. Describe with sketches the process of manufacturing cast iron from the ore.

3. How do white cast iron, gray cast iron, steel and wrought iron differ from each other in composition and physical properties?

4. What materials are necessary for making (a) fire-brick, (b) terracotta ware, (c) roofing tiles? Describe any process you know for making one of the three classes of articles named.

5. What are the causes of corrosion in iron and steel?

Name the essential properties of a good paint. Linseed oil is the usual "vehicle" for paints. Why is a mineral oil having the same appearance unsuitable although it would be cheaper?

What precautions must be observed before painting a steel girder?

SEVENTH PAPER.

DETAILS OF CONSTRUCTION.

Examiners— { I. H. RICHARDSON, ESQ.
 { W. J. KEIR, ESQ.

Attempt only FOUR questions in EACH half.

Your own ideas are wanted. The examiners will not be impressed by your reproducing pages of text-book from mere memory.

Read each question carefully BEFORE you answer it.

All questions carry equal marks.

FIRST HALF.

1. Mr. Gardner considers that the system of assuming the dead and live loads on roofs and floors to be equal to a dead load of $1\frac{1}{2}$ cwt. per square ft. of floor area defeats its own object in the case of foundations of ordinary buildings. Confirm or refute his idea, explaining your views by calculations in an assumed case.

2. Give sketches to show how you would construct a reinforced brick roof of a span of about 18 feet. (Calculations are not required.)
3. Show by sketches how you would provide for drainage in the case of a hill road for pack animals and foot passengers.
4. Draw sketches of a pipe culvert for a first-class road and show how you would calculate the length of the pipe and also the length of the return walls.
5. What surface would you advise for roads such as—
 - (a) the Strand Road, Calcutta;
 - (b) Dalhousie Square;
 - (c) a first-class road in Chota Nagpur;
 - (d) a first-class road in Dacca;
 - (e) a third-class district road;giving your reason in each case ?

SECOND HALF.

1. Make a sketch showing how the Basement of a house should be constructed, the floor of which is 6' below the ground level, in damp clay soil.
2. Make a diagrammatic sketch showing the arrangement by which the syphonage of the traps to sanitary fittings is prevented in the case of a three-storied dwelling house having a W.C. on each floor.
3. Draw in plan and section to 1½" scale a doorway 4' x 8' in an external wall, showing lintel and chowkats, wall plastered internally and brick, faced externally. Doors to be 4-fold glazed panel doors opening inwards, and 2-fold Venetian shutters opening outwards.
One half of plan to show doors and shutters closed, and the other half showing them open and folded back against wall.
4. Make sketches of 4 different joints used in Carpentry with which you are familiar, and explain where used, and their advantages.
5. A bridge is to be finished with a stone balustraded parapet; show by sketches the dowels, cramps and joggles to give additional strength to the joints you would use in fixing this work.

In the case of metal connections, what precautions are necessary ?

EIGHTH PAPER.

ESTIMATING.

Examiners— { D. R. G. TURNBULL, ESQ.
 RAI S. B. MAJUMDAR, BAHADUR.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks.

FIRST HALF.

N.B.—*Candidates must answer the FIRST THREE, and any ONE of the other
 questions.*

Find cost of the following items of work to the building in Plate A
 attached.

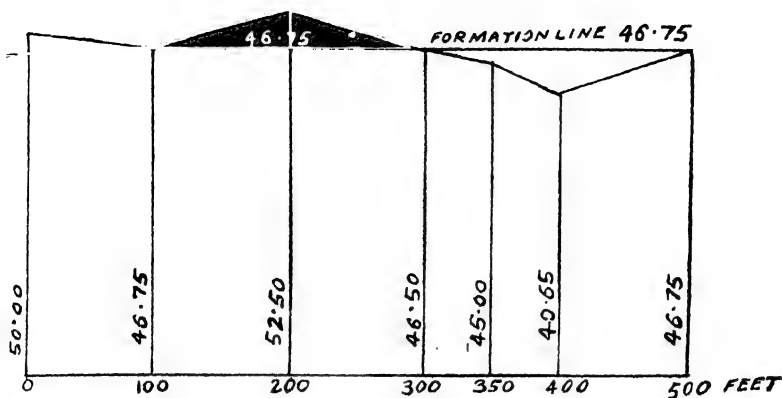
- | | |
|--|----|
| 1. Brick in lime in foundation and plinth @ 34/- per hundred cubic feet. | 30 |
| 2. Priming 1 coat all wood and iron work @ 8/- per hundred superficial feet. | 25 |
| 3. Teakwood work in door and window frames @ 7/- per each cubic foot. | 20 |
| 4. Brick in lime in Superstructure @ 35/12/- per hundred cubic feet. | 25 |
| 5. 1½" Teak panel doors @ 1/10/6 per each superficial foot. | 25 |

SECOND HALF.

From the accompanying Longitudinal Section find out the quantity 100
 of earthwork for a kucha road, the formation line being given.

Width of road both in cutting and embankment to be 10 feet with
 side slopes 1 to 1. The land is horizontal transversely.

LONGITUDINAL SECTION.



HORIZONTAL SCALE - 100 FT. = 1 INCH.

VERTICAL SCALE - 20 FT. = 1 INCH.

NINTH PAPER.

SURVEYING.

Examiners— { RAI AMARNATH DAS, RAHADUR, B.E.
BABU RAMRANJAN GHOSH.

Candidates are required to give their answers in their own words as far as practicable.

Only FOUR questions are to be attempted from each half.

The questions are of equal value.

FIRST HALF.

1. If you have to survey a large plot of land with many obstacles with the chain only, what considerations must you specially attend to when fixing your station points?
2. Compare step by step the points of operation which explain the greater precision of work by Theodolite Traverse over that by Prismatic Compass.
3. What methods would you adopt for checking your work when conducting a Plane Table Survey?
4. Explain the relation between the upper bubble and the line of sight, and describe with sketches how you would correct it if it was out of order.
5. Two straight lines AP and BP intersect at P making an angle APB $129^{\circ} 17'$. If you are supplied with a Theodolite and a 100 ft. chain,

describe how you would set out a curve of 2000 ft. radius tangential to *AP* and *BP*. Work out the necessary calculations.

Or,

What do you understand by subtense measurement? Describe the method of working.

SECOND HALF.

6. State the precautions necessary to ensure accuracy when using the plane table.

7. What is meant by "repetition" in taking angles by a theodolite? What errors does repeating of angles eliminate?

8. How would you find the horizontal distance between two points 500 feet apart but which are placed at a difference of 40 feet in level. Describe briefly the different methods and say which of them is expeditious and which is most accurate.

9. What surveys are necessary in preparing a Road project?

10. How would you measure the base line for a Trigonometrical survey, and how do you reduce it for purposes of plotting?

TENTH PAPER.

DRAWING.

Examiners—{ D. R. G. TURNBULL, ESQ.
 { W. J. KEIR, ESQ.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

N.B.—Answer the FIRST and any one of the other questions.

1. Draw to a scale of $\frac{1}{8}$ " to a foot the Elevation on AB, which is at 45° with the Vertical plane, of the building in the attached plate. 60

2. Illustrate by clear sketches any five of the following, together with parts of the building in which they occur:— 40

- | | |
|--------------------------|-------------------------|
| (a) Architrave moulding, | (b) Archivolt moulding, |
| (c) String course, | (d) Quoin, |
| (e) Wall plate, | (f) Buttress, |
| (g) Pilaster, | (h) Frieze. |

3. Draw plan and elevation of a circle of $1\frac{1}{2}$ " diameter with its plane vertical and inclined to the Vertical plane at 45°. 40

SECOND HALF.

1. Shew in isometrical projection a section of:—

- (a) A steel girder 12" x 5" carrying steel joists 4" x $1\frac{3}{4}$ " spaced 4' ft. apart, upper flanges flush, and secured with lugs and bolts. 40
- (b) Shew same with members dissociated.

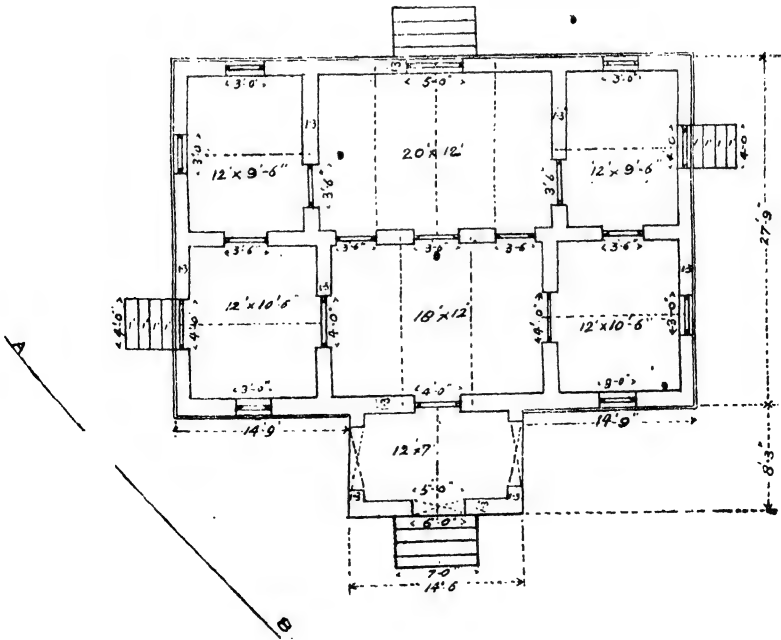
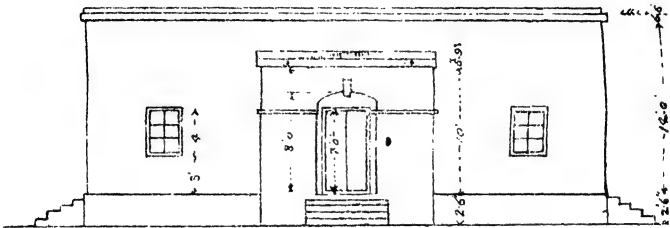
2. Draw full size or to a large scale the plan and elevation of a $\frac{3}{4}$ " 20 diam. bolt 9" long with a hexagonal nut screwed on at one end, and lying on the horizontal plane at an angle of 45° with the Vertical plane.

3. Make a rough pencil perspective sketch of:— 20
A table with a cylinder standing vertically in its centre. 20

4. Answer one only of the following:—

(a) Inscribe 3 circles in a spherical triangle, each touching one side and two circles.

(b) Inscribe within any regular polygon as many semi-circles as the figure has sides, each touching one side and having their diameters adjacent.



I.C. Examination.

1918.

(SECTION A).

MATHEMATICS.

FIRST PAPER.

Examiners— { S. N. MAITRA, Esq., M.A.
 { DR. HARIDAS BAGCHI, M.A., Ph.D.

Candidates are required to give their answers in their own words as far as practicable.

Answer any EIGHT questions.

The questions are of equal value.

1. Find the magnitude and direction of the resultant of two forces P and Q , inclined at an angle a to each other.

If
$$P = \left(\frac{1}{3} + \frac{1}{3^2} + \frac{1}{3^3} + \dots \text{ to } \infty \right) \text{ lbs. wt.,}$$

$$Q = 2 \left(\frac{1}{5} + \frac{1}{5^2} + \frac{1}{5^3} + \dots \text{ to } \infty \right) \text{ lbs. wt.,}$$

a is an acute angle, whose sine

$$\frac{1}{2} \sqrt{5} - 1$$

prove the resultant must bisect the angle between P , Q , and find its magnitude (in lbs wt.), correct to 3 decimal places.

2. Establish Lami's theorem that, if three forces, acting on a rigid body, produce equilibrium, each is proportional to the sine of the angle between the other two.

A body is in equilibrium under the action of three forces x grms. wt., y grms. wt., and z grms. wt., satisfying the relation

$$x^2 + y^2 + z^2 = yz + zx + xy.$$

Prove that the three forces are equally inclined to one another.

3. Define the *moment of a force round a point*, and draw the necessary inferences, when the moment of a force about

- (i) a single point, is zero,
- (ii) each of two given points, is zero,
- (iii) each of three given points, is zero.

The moments of a force F (taken with proper signs) round two points A and B are equal and opposite. Prove that the line of action of F must bisect the line AB .

4. Obtain the conditions of equilibrium of a rigid body acted on by a number of a parallel forces.

A body is in equilibrium under the action of four parallel forces P, Q, R, S , of which P, Q, R act in the same sense, and S in the opposite sense.

$$\text{If } Q = (1 + 2 + 3 + \dots + 30) \text{ lbs. wt.,}$$

$$R = (1^2 + 2^2 + 3^2 + \dots + 30^2) \text{ lbs. wt.,}$$

$$S = (1^3 + 2^3 + 3^3 + \dots + 30^3) \text{ lbs. wt.,}$$

calculate the magnitude of P .

5. Multiply (by contracted methods) 31.483241 by 2.3456 , retaining three places of decimals. And verify that the quantity .00004, added to, or subtracted from, the multiplicand, does not affect the final product up to the 3rd decimal place.

6. After a careful calibration, it is found that the discharge D gallons per minute over a certain weir obeys the relation

$$D = 20 H^{1.48},$$

where H is the head of water in feet above the sill of the weir. Calculate, by means of a log table, the head necessary to discharge .062 gallon of water per second.

7. An arch in the form of an arc of a circle 40 feet in diameter crosses a stream 30 ft. wide. Calculate, to the nearest inch, the entire length of the arch, and its height at the centre of the stream.

8. A surveyor gives the following dimensions of a triangular field ABC :— $AB=1100$ links, $BC=1250$ links, $CA=1400$ links. Calculate the area of the field; and find the discrepancy in the result on the assumption that an error (additive) of $\frac{1}{15}$ per cent. has been made in each measurement.

9. A railway cut through a hill is in the form of a rectangular parallelepiped, whose dimensions are 31 metres, 8.2 metres, and 1.7 metres respectively. Find the volume of earth removed in constructing the railway.

If this earth just suffices to fill up a ditch 22 metres long and 9.1 metres broad, determine the depth of the ditch (to the nearest centimetre).

10. Quote the formula for the volume of a hollow cylinder, whose dimensions are given.

An iron roller is in the shape of a hollow cylinder, whose length is 4 ft., external diameter 2 ft. 8 in., and thickness 4 inches. Find the weight of the roller (in pounds), supposing one cubic ft. of iron to weigh 486 lbs.

11. Assuming the ordinary formulæ for the volume (V) and superficial area (S) of a sphere, establish the identity

$$3 \log S = 2 \log V + \log \pi + 2 \log V.$$

Hence or otherwise, calculate the area of the surface of a spherical ball, whose volume is 512 cubic feet.

$$\left[\text{Take } \pi = \frac{22}{7}. \right]$$

12. There are n cones, the radii of whose circular bases are $r, 2r, 3r, \dots, nr$ respectively. If the corresponding altitudes be $h, 2h, 3h, \dots, nh$, prove that the sum total of the volumes of all the cones is

$$= \frac{1}{3} \pi r^2 h \cdot \left[\frac{n(n+1)}{2} \right]^2.$$

MATHEMATICS.

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

Note more than EIGHT questions are to be attempted.

The questions carry equal marks.

FIRST HALF.

1. Find from first principles the differential coefficient of $\cos x$.
Given that

$$y = \log \sqrt{\frac{1 - \cos x}{1 + \cos x}},$$

find the value of $\frac{dy}{dx}$.

2. Find $\frac{dy}{dx}$ in the following:—

(i) $x^3 + y^3 - 3axy = c,$

(ii) $x \log y - y \log x = 0.$

3. Prove Maclaurin's theorem without assuming Taylor's theorem.
Expand $\cos x$.

4. If $u = (\sin^{-1} x)^2$,
prove that

$$(1 - x^2) \frac{d^2 u}{dx^2} - x \frac{du}{dx} = 2.$$

5. Find the limiting values of:—

$x - \sin x$, when $x = 0$,

(ii) $(\sin x) \tan x$, when $x = \frac{\pi}{2}$.

SECOND HALF.

6. Explain how to find the minimum value of $f(x)$.
Investigate for what values of x the following function has got a real maximum or a minimum:—

$$y = \frac{x^2 - 7x + 6}{x - 10}.$$

7. Find the co-ordinates of a point which divides in a given ratio ($l : m$) the line joining two given points

$$(x_1, y_1) \text{ and } (x_2, y_2).$$

Prove that the lines joining the middle points of opposite sides of a quadrilateral and the line joining the middle points of its diagonals meet in a point and bisect one another.

8. Find the perpendicular distance of the point (x_1, y_1) from the line whose equation is

$$x \cos a + y \sin a = p.$$

Find the perpendicular distance of the point $(1, 3)$ from the line

$$12x - 5y - 10 = 0.$$

9. Find the condition that the equation

$$ax^2 + 2hxy + by^2 + 2gx + 2fy + c = 0$$

may represent two straight lines.

For what value of λ does the equation

$$\lambda xy + 5x + 3y + 2 = 0$$

represent two straight lines?

10. Find the locus of the middle points of a system of parallel chords of a circle.

Find the pole of the line

$$4x + 6y - 7 = 0$$

with respect to the circle whose equation is

$$x^2 + y^2 = 35.$$

11. Find the locus of the point of intersection of two tangents to a parabola which are at right angles to one another.

PHYSICS.

Examiners— $\left\{ \begin{array}{l} \text{S. N. MAITRA, ESQ., M.A.} \\ \text{TULSIDAS KAR, ESQ., M.A.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

Only THREE questions to be attempted in each half.

The questions are of equal numerical value.

FIRST HALF.

1. Show how the coefficient of cubical expansion of a liquid may be found by weighing in the liquid and in air, a solid the coefficient of linear expansion of which is known.

2. Assuming Boyle's law to hold good, show that the coefficient of pressure increase at constant volume is equal to the coefficient of volume increase at constant pressure.

The pressure upon a gas is doubled, and at the same time its temperature is raised from 13°C to 299°C . How does this affect its volume?

3. Give an account of Callendar's compensated air thermometer.

4. Give the theory of Bunsen's ice calorimeter.

0.484 grm. of a metal at 100°C is dropped into a Bunsen's calorimeter and the thread of mercury moves backwards through 1.21 cms. in the capillary tube, the diameter of which is 0.6 mm. Assuming that 881 heat units are required to cause a contraction of 1 cc., find the specific heat of the metal.

5. Describe Joly's steam calorimeter.

A kilogramme of ice is taken at -10°C and heat is continually applied to it until a temperature of 1000°C is attained. Trace the successive effects produced, stating the amount of heat required for each of these effects.

Specific heat of ice = 0.5, heat of steam = 0.48.

SECOND HALF.

1. Describe Victor Meyer's method of measuring vapour density.

Calculate the vapour density if in an experiment by this method we have the weight of liquid = 0.12 grm.; volume of air driven off and collected over mercury = 38 cc.; temperature of air = 15°C ; height of barometer = 75 cms.

2. Describe a method of determining the speed of light through air.

3. Calculate the focal length of a lens which would produce an image 6 ft. square of a lantern slide 3 inches square, the screen on which the image is to be formed being 20 ft. from the lantern. Show by means of a diagram how the slide would have to be placed to give an erect image on the screen.

4. Compare the relative merits of Ramsden's and Huygen's eyepieces. Give the theory of one of them.

CHEMISTRY.

Examiners— $\left\{ \begin{array}{l} \text{R. N. SEN, ESQ., M.A.} \\ \text{N. BRODIE, ESQ.} \end{array} \right.$

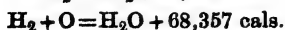
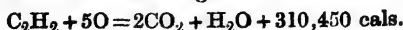
Candidates are required to give their answers in their own words as far as practicable.

Not more than THREE questions to be attempted in each half.

All questions carry equal marks.

FIRST HALF.

1. Explain by examples what is meant by exothermic and endothermic compounds and compare their stability. Calculate the heat of formation of acetylene gas from the following data:—



2. What do you understand by the calorific power and the evaporative power of a fuel ?

Describe briefly the preparation of producer gas. What is its composition ?

3. Briefly describe any commercial method of preparing chlorine. What are its characteristic properties and its chief uses ? Give the tests for chlorine.

4. Explain the modern processes adopted for the smelting of lead from galena and in the desilverisation and softening of the crude metal. Give the names, composition and uses of the important alloys of lead.

5. Describe the preparation, properties and uses of the following:—Copper Sulphate, Alum, Zinc Chloride and Potassium Permanganate.

SECOND HALF.

1. 35.1 c.c. of $\frac{N}{2}$ sulphuric acid solution are required to neutralise one gram of impure sodium carbonate. Calculate the percentage purity of the sodium carbonate. How many grams of sulphuric acid are there in a litre of $\frac{N}{2}$ solution ?

2. 10 litres of a gaseous hydrocarbon at 27°C and 750 mm. weigh 6.4145 grams. Calculate the formula of the gas and give its name and a short account of its properties.

3. Express by equations the action of nitric acid on (1) Copper, (2) Red Lead, (3) Calcium Carbonate, (4) Ferrous Sulphate, (5) Sodium Chloride and (6) Tin. Name the products formed in each case.

4. Give brief examples of the use of coke in the reduction of metals from their ores. Why cannot aluminium be obtained in this way ?

5. Give an account of the industrial uses of the different allotropic forms of carbon.

B.E. Examination.

1918.

(Old Syllabus).

MATHEMATICS.

Examiners— $\left\{ \begin{array}{l} \text{P. GANGOOLY, Esq., M.A.} \\ \text{S. N. MAITRA, Esq., M.A.} \\ \text{BABU TULSICHARAN BOSE, M.A.} \end{array} \right.$

FIRST PAPER.

Candidates are required to give their answers in their own words as far as practicable.

All the questions are of equal value.

Not more than THREE questions to be attempted from each half of the paper.

FIRST HALF.

1. Prove that the resolved accelerations of a point in polar coordinates are

$$\ddot{r} - r\dot{\theta}^2 \text{ and } \frac{1}{r} \frac{d}{dt} (r^2 \dot{\theta}).$$

Hence shew that in the case of uniform motion in a circle the resultant acceleration is directed towards the centre of the circle and is equal to the radius multiplied by the square of the angular velocity.

2. Prove that the path of a projectile is a parabola if air-resistance be neglected.

A gun fires a shot with velocity 800 ft./sec. to hit an object 900 ft. above the point of projection, and at a horizontal distance $9000\sqrt{3}$ ft. from it. At what elevation should the gun be pointed?

3. A uniform, heavy inextensible string hangs freely under the action of gravity. Find the equations of the curve which it forms.

4. Find the centre of pressure of a triangle immersed in a liquid with its vertex in the surface and its base horizontal.

5. Assuming that the temperature in the atmosphere is constant, prove that the relation between the pressure and height above sea-level is

$$p = p_0 e^{-\frac{z}{H}}.$$

Hence shew how a barometer may be used to ascertain the difference of level between two stations.

SECOND HALF.

1. Solve

$$(a) \frac{dy}{dx} = \frac{x+2y-3}{2x+y-3}, \quad (b) \frac{d^2y}{dx^2} + y = 2 \cos x.$$

2. Solve

$$(a) \frac{dy}{dx} + \frac{y}{x} = y^3, x^2, \quad (b) \frac{d^2y}{dx^2} + y = x - e^{2x}.$$

3. Find the general integral and singular solution of

$$(a) y = px + \frac{a}{p}, \text{ when } p = \frac{dy}{dx}.$$

$$(b) y = px - \sin p$$

4. Integrate

$$(a) \int \log x \, dx, \quad (b) \int \frac{dx}{\sin x + \cos x},$$

$$(c) \int_0^{\tau} 2 \cos^2 \left(\frac{2\pi t}{\tau} - \alpha \right) dt$$

5. (a) $x = a(\theta + \sin \theta)$, $y = a(1 - \cos \theta)$

are the equations of cycloid. Find the length of the arc between the points given by $\theta = 0$, $\theta = \pi$.

(b) A circle, centre $(4, 0)$, radius 4, revolves about the axis of x . Find the volume generated between the limits $x=2$, $x=0$.

MATHEMATICS.

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

All the questions are of equal value.

Not more than THREE questions from each half to be attempted.

FIRST HALF.

1. Find the conditions of equilibrium of a rigid body under the action of a system of co-planar forces. If a system of forces acts in one plane upon a rigid body, and if the algebraic sum of their moments about each of three non-collinear points in the plane vanishes separately, the system of forces is in equilibrium.

2. A uniform rod rests in a fixed smooth hemispherical bowl; show that the rod cannot project beyond the rim of the bowl unless its length exceeds $\sqrt{2}$ times the length of the diameter of the bowl.

3. A smooth horizontal tube OA of length a is movable about a vertical axis OB through the extremity O .

A particle placed at the extremity A is suddenly projected with velocity aw while at the same time the tube is made to revolve about OB with angular velocity w . Show that the particle will have travelled half-way down the tube after a time $\frac{1}{w} \log 2$, and will not reach O in any finite time.

4. A heavy particle of mass m falls from rest in a medium in which the resistance is mk (velocity): show that the velocity acquired and the space fallen in time t are given by the equations

$$v = \frac{g}{k} (1 - e^{-kt}) \text{ and } x = \frac{gt}{k} - \frac{g}{k^2} (1 - e^{-kt}).$$

5. A thin uniform rod has one end attached to a smooth hinge and is allowed to fall from a horizontal position; show that the horizontal strain on the hinge is greatest when the rod is inclined at an angle of 45° to the vertical, and that the vertical strain is then $\frac{1}{\sqrt{2}}$ times the weight of the rod.

(SECOND HALF.

1. Enunciate and explain D'Alembert's Principle.

A plank of mass M is initially at rest along a line of greatest slope of a smooth plane inclined at an angle a to the horizon, and a man of mass M' , starting from the upper end, walks down the plank so that it does not move: show that he gets to the other end in time.

$$\sqrt{\frac{2 M' a}{(M + M') g \sin a}},$$

where a is the length of the plank.

2. A particle starting from rest, moves in a straight line from a distance a towards a centre of force. The force varies inversely as the cube of the distance. Prove that the whole time taken by the particle in reaching the centre of force is $\frac{a^2}{\sqrt{\mu}}$.

3. A heavy uniform string 90 inches long hangs over two smooth pegs at different heights. The parts which hang vertically are of lengths 30 and 33 inches. Prove that the vertex of the catenary divides the whole string in the ratio of 4 : 5, and find the horizontal distance between the pegs.

4. (a) Prove that the thrust on any plane area exposed to a homogeneous liquid under gravity is equal to the weight of a column of the liquid whose base is equal to the area, and whose height is equal to the depth of the centre of mass of the area below the effective surface of the liquid.

(b) Find the centre of pressure of a circle, wholly immersed with its plane vertical in a homogeneous liquid.

5. An equilateral triangle ABC , of weight W and specific gravity σ , is movable about a hinge at A , and is in equilibrium when the angle C is immersed in water and the side AB horizontal. It is then turned about A in its own plane until the whole of the side BC is in the water and horizontal; prove that the action at the hinge in this position

$$= \frac{2(1 - \sqrt{\sigma})}{\sqrt{\sigma}} W.$$

GEOLOGY AND MINERALOGY.

Examiners— $\left\{ \begin{array}{l} \text{E. H. ROBERTON, ESQ.} \\ \text{G. DE P. COTTER, ESQ.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Either (a) or (b) of each question only to be answered.

Each question carries equal marks.

1. (a) What do you mean by the term "Millerian Index" ?
Sketch the crystal of the cubic system whose faces are defined by the forms $\{0,0,1\}$, $\{1,1,0\}$, with the former predominating.
- (b) What are meant by the terms :—twinning, oscillation, hemihedral, pseudomorph, double refraction, trigonal, pinacoid ?
2. (a) How would you ascertain whether samples submitted to you contained the following minerals :—Iron, Sulphur, Mercury, Manganese, Zinc, Gold ?
- (b) How would you distinguish between the following minerals :—
(i) Graphite and molybdenite.
(ii) Iron pyrites, copper pyrites, marcasite, and gold.
3. (a) Draw an imaginary geological plan and section which include the following :—Unconformity, Trough fault, Dyke, Syncline, Anticline.
- (b) In selecting a site for an important building on the side of a mountain, how would you decide whether the place is free from earthquakes and landslips ?

SECOND HALF.

Answer either part (a) or part (b) of each question.

The questions carry equal marks.

1. (a) Explain the terms anticline, unconformity, thrust plain, reversed fault, epicentre, breccia, schistose structure, volcanic bomb, meandering (of rivers), peneplain.
- (b) Give a classification of the volcanic rocks with their chief mineral constituents, and mention the chief lava-flows of India.
2. (a) What are wolfram and mica used for ? In what parts of the Indian Empire are these minerals found, and in what kind of rocks ?
- (b) Write an account of the manganese ores of India and their associated rocks.
3. (a) Suppose you were to journey from the plains of India near the foot of the hills through the Himalayan mountains to Tibet, what kinds of rocks would you see as you travelled northwards ?
- (b) In what countries are Gondwana deposits found ? What was the ancient extent of Gondwanaland ? What kind of climate existed at the commencement of the Gondwana period ? Name in order the rock series of the Gondwana System.

METALLURGY AND TESTING OF MATERIALS.

Examiners— { R. N. SEN, Esq., M.A.
 { H. F. DAVY, Esq.

Candidates are required to give their answers in their own words as far as practicable.

Not more than THREE questions to be attempted in each half.

All questions carry equal marks.

FIRST HALF.

1. Describe the electrolytic refining of copper.

What is the effect of small quantities of foreign substances on copper?

2. Describe in detail the Thompson method of determining the calorific power of a sample of coal. Discuss the value of the process and its limitations.

3. How can you determine the percentage of CO_2 , O and CO in flue gases, and what is the practical use of such an analysis? Give a sketch of the apparatus you use.

4. Give an account of the various refractory materials used for metallurgical purposes, stating the suitability of each for any particular object.

How would you test clay to be used for crucibles and fire-bricks?

5. Briefly describe the cyanide process of extracting gold, and compare it with the chlorination process.

SECOND HALF.

1. Name the copper alloys in common use, giving their compositions.

What foreign substances are usually found in structural steel, and in what quantities? Name them, and say what influence each has on the physical properties of the steel.

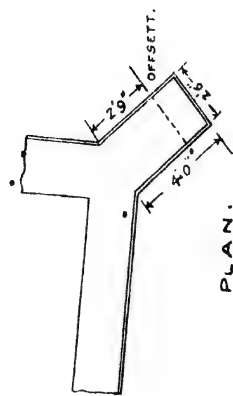
2. Sketch and explain stress-strain diagrams for (a) a high tensile steel rod 10" long \times 1 sq. inch section and (b) a copper rod of the same size. What do you understand by (a) the elastic limit, (b) the modulus of elasticity, (c) the percentage elongation? Of what use are these in determining the quality of the material?

3. Give a concise account of a process for making malleable castings. From what material are they made, and what are their advantages and disadvantages?

4. Describe the following heat treatments of steel: (a) annealing forgings, (b) case hardening, (c) hardening and tempering tool steel, giving details of the effect of the treatment on the physical properties of the material and the changes of internal structure which are brought about.

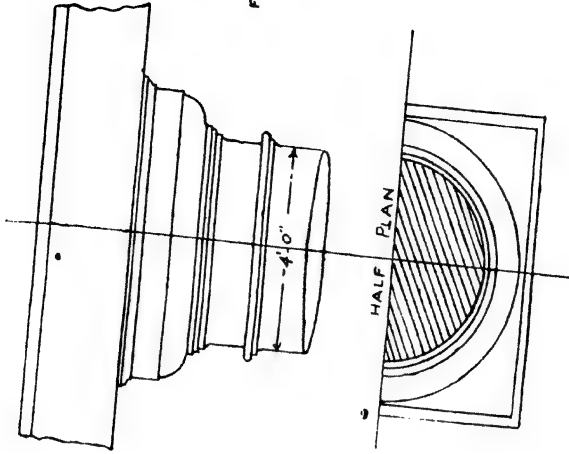
5. Describe briefly the Open Hearth Process of manufacturing steel. Two kinds of steel are manufactured, viz. acid and basic. What governs the selection of the particular process?

FIG. 1.



PLAN.

FIG. 2.



APPLIED PHYSICS.

Examiners—{ S. N. MAITRA, Esq., M.A.
F. W. SEDGEWICK, Esq.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Only THREE questions to be attempted.

The questions are of equal value.

1. Derive an expression for the periodic time of a vibrating spiral spring from the doctrine of energy. Explain how the torsional rigidity of a wire may be determined from observations of the period of oscillations of a spiral made from the wire.

2. Prove the First Latent Heat Equation.

The latent heat of fusion of ice is 80 and the volume of 1 grm. of ice at 0°C is 1.0908 c.c. Prove that the effect of an additional atmosphere pressure will be to lower the melting point of ice by 0.0074°C .

[Take the pressure of an atmosphere = 1.014×10^6 dynes per sq. cm.].

3. What is meant by the coefficient of performance of a refrigerating machine?

Obtain from thermodynamic principles the coefficient of performance of an ideally perfect refrigerating machine.

4. Give a critical account of methods which have been devised for the measurement of very high temperatures.

5. Draw the polar curve of distribution from the following data and hence find the mean hemispherical candle-power of a given carbon glow lamp.

$$Oa_1 = 1.6 \text{ cms.}$$

$$Oa_2 = 1.9 \text{ cms.}$$

$$Oa_3 = 2.2 \text{ cms.}$$

$$Oa_4 = 2.6 \text{ cms.}$$

$$Oa_5 = 2.8 \text{ cms.}$$

$$Oa_6 = 3.0 \text{ cms.}$$

$$Oa_7 = 3.2 \text{ cms.}$$

$$Oa_8 = 3.4 \text{ cms.}$$

$$Oa_9 = 3.5 \text{ cms.}$$

Scale 1 cm. = 50 C.P.

O is the source, and Oa^1 , Oa_2 , etc., are the radii vectors drawn to the polar curve.

SECOND HALF.

Candidates are required to give their answers in their own words as far as practicable.

All questions have equal values in marks.

Only FIVE are to be attempted.

1. (a) Discuss the features of a supply of Water-power and of its neighbourhood that would render it advantageous to convert the supply into electrical energy for distribution.

(b) Give with your reasons any regions in India where you consider Water-power supplies with these features are likely to be found.

2. Discuss briefly the following points:—

(a) The advantages of driving machines in factories and workshops by electric motors.

(b) The relative advantages of ordinary fires and electric radiators for warming rooms

(c) The reason why electrification is more suitable to "suburban" than "main line" railway traffic.

3. Sketch the construction of an Armature for a small continuous current motor, explaining the principal points of the construction.

4. A house is lighted by 18×50 Watt metal filament incandescent electric lamps. The cost of the Wiring Installation is Rs. 900, and interest and depreciation combined can be taken as $9\frac{1}{2}\%$. The price of the lamps is Rs. 1/12/- each, their life is 1500 hours, and they consume 1.6 watts per mean spherical candle power. The price of electrical energy is 6 annas per Unit.

Calculate the cost of 1000 candlehours of light in this house.

5. Explain the following points in connection with the phenomena of an electric arc between carbons for illumination purposes:—

(a) The method by which the arc is started and afterwards the manner in which the current continues to flow across the gap between the carbons.

(b) The effect of partially enclosing the arc.

(c) The difference between a flame arc and an ordinary carbon arc.

6. Describe with sketches the characteristic component parts for the following systems of wiring buildings internally for an electric supply:—

(a) The Wood Casing System,

(b) The Flexible Metallic Covered System; and contrast their advantages.

7. (a) Explain the meaning of:—(1) the Insulation Resistance of an insulated wire, and (2) the Insulation Resistance to Earth of a circuit.

(b) Explain in connection with the above why (1) can be readily calculated while (2) cannot be calculated for an ordinary electric supply circuit and is also very variable.

(c) *A* and *B* are the terminals of an instrument for measuring insulation resistance; show by a diagram how you would connect two Mains *X* and *Y* to the terminals *A* and *B* so as to measure (1) the insulation resistance between *X* and *Y* and (2) the insulation resistance of *X* and *Y* together to earth.

8. A Continuous Current supply of 25 amperes at 5 volts is required at certain terminals *X* and *Y*, a 220 volt C.C. supply being available: explain with diagrams two methods of obtaining the required supply and contrast their advantages.

ROADS AND RAILWAYS.

Examiners—{ T. H. RICHARDSON, ESQ.
G. F. WYATT, ESQ.

Candidates are required to give their answers in their own words as far as practicable.

Only FOUR questions to be answered from each half.

The questions are of equal value.

FIRST HALF.

1. Give sketches to show how you would construct a reinforced brick roof about 18' span. (No calculations required).

2. Show by sketches how you would drain a hill road graded for pack animals and foot passengers only.

3. Sketch a pipe culvert for a first-class road where the drainage comes from a small area that drains into a tidal river, the level of the area to be drained being lower than the water level in the river at high tides.

4. What surface would you choose for roads such as—

- (a) The Strand Road.
- (b) Dalhousie Square.
- (c) A first-class road in Chota Nagpur.
- (d) A first-class road in Dacca.
- (e) A third-class district road.

Give your reasons in each case.

5. Increasing axle load on a railway involves laying rails of a heavier section.

This can be avoided to some extent by spacing the sleepers closer. What consideration limits the increase that can be met by closer spacing in the case of the permanent-way adopted on Indian Railways?

SECOND HALF.

1. What points should be especially observed when locating a railway in hilly country?

2. What are the advantages of an arched bridge over a girder bridge, and vice versa, for spans up to 40'?

3. Give a dimensioned sketch (not to scale) of a small station yard, 5'6" gauge, consisting of main line, one loop and a short dead end. Outer points 1 in 12, dead end points 1 in 8½. Give the leads of the points and the distance of the fouling points from the nose of the crossing.

4. What is a transition curve? Give the reasons for its use and describe briefly the method of setting out.

5. Describe the method of plate-laying, differentiating between banks and cuttings. How would you organise a plate-laying gang for laying a road with wooden sleepers?

IRRIGATION AND SANITARY ENGINEERING.

Examiners— { CHUNILAL SARKAR, Esq., B.E.
 { G. B. WILLIAMS, Esq.

Candidates are required to give their answers in their own words as far as practicable.

Answer Question No. 2 and any THREE out of the remaining four

FIRST HALF.

All questions carry the same marks.

1. What are the chief characteristics of a Delta river? What main operations are connected with delta project, and why is drainage a necessary accompaniment to irrigation?

2. Distinguish between a 'weir' and a 'barrage.'

Mention the cause of failure of the Delta barrage of the Nile. How was the restoration of the barrage carried out? Give sketches illustrating your answer.

3. What are the chief dangers to river weirs, and how are they severally provided against in designing these works?

4. Describe, with the aid of sketches, the Narora weir, stating the object of the weir and explaining the reasons which rendered necessary the alterations of recent years.

5. In a given tract of country, would you give a steeper bed slope to a canal of larger capacity than to a small one or the reverse? Give your reasons.

A canal with a bed slope of one foot per mile runs through a country with an average slope of 3 feet per mile. How is the difference in slope dealt with?

SECOND HALF.

Four questions only to be answered.

The questions are of equal value.

1. What are the objects to be aimed at in designing a system of (a) surface drains and (b) sewers?

Draw a dimensioned sketch of a sewer capable of discharging, when flowing full, 40 cubic feet per second with a velocity of 3 feet per second.

What is meant by the following terms:—(i) self-cleansing velocity, (ii) combined system of drainage, (iii) average daily dry weather flow in a sewer?

2. What is the object of sewage purification? Describe as far as you can the processes of (i) liquefaction in a septic tank, (ii) purification by passing through aerobic filters, (iii) purification of sewage by application to land.

3. Describe the system of disposal of nightsoil by trenching.

What are the chief dangers and nuisances arising from this form of disposal, and how are they to be guarded against?

4. Explain, illustrating by sketches, the phenomenon of springs.

Suppose it is intended to give a supply of water to a town of 100,000 inhabitants, at the rate of 30 gallons per head per day. The supply is to be obtained from an impounding reservoir to hold 250 days' supply plus sufficient to allow for loss by evaporation. The fall from the reservoir to the service reservoir at the town is 50 feet, the distance being 10 miles. The evaporation from the surface of the reservoir is $\frac{1}{10}$ th inch per day.

What is (a) the approximate capacity of the impounding reservoir, (b) the diameter of the pipe to the service reservoir calculated from the formula $v=110\sqrt{rs}$, where v =velocity in feet per second, r =hydraulic mean radius = $\frac{\text{dia. of pipe}}{4}$, s =inclination of pipe?

5. Describe, illustrating by sketches, a slow sand filter, and explain its operation.

APPLIED MECHANICS.

Examiners— $\left\{ \begin{array}{l} \text{T. H. RICHARDSON, ESQ.} \\ \text{D. H. REMFRY, ESQ.} \end{array} \right.$

Molesworth, Trautwine, Military Works Handbook and a Manufacturers' Handbook such as Dorman Long's may be used for this paper.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

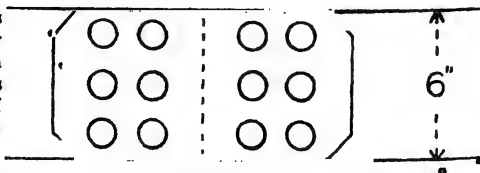
Answer FOUR questions only from this half. Each questions carries 50 marks.

1. The girders on a Railway have been designed in accordance with the G. of I. bridge rules of 1908. It is proposed to introduce heavier locomotives. Show how you would determine if this new stock would cause greater stresses in the girders than those for which they were designed.

2. Why are the horizontal reactions of the walls carrying a roof truss indeterminate?

How is this difficulty met?

3. A tie $6" \times \frac{1}{4}"$ is spliced by two cover plates each $6" \times 1"$ with six rivets on each side as shewn. The diameter of the rivets is $1"$ and the pitch is $1"$.



Do you approve of the joist? If not, propose some improved method.

4. Design a strutt with free ends $10'$ long to carry a load of 12 tons.

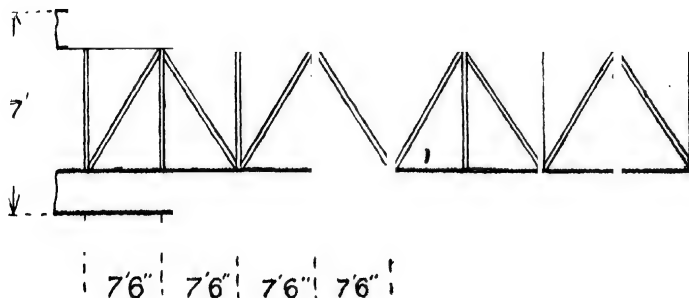
5. Investigate the distribution of shearing stress on a I section $24" \times 7\frac{1}{2}"$. Thickness of flanges $1"$, thickness of web $\frac{1}{4}"$.

SECOND HALF.

Only FIVE questions to be answered from this half. Each question carries 40 marks.

6. Design a wind brace for a bridge, effective length 6' 6". Stress varies from +30 tons to -30 tons. Show what rivets you would use and how you would connect it to the flanges of a plate girder.

7. Diagram shows the wind-bracing system between the top booms of a 60' plate girder deck railway bridge. The girders are 6' deep. A train has an exposed area of 10' per foot run wind pressure, 33 lb per square foot of loaded span, 56 lb per square foot of unloaded span. Give the stresses in the members of the bracing.



8. Design a reinforced concrete column 12' high to support 35 tons.

9. Design the footings to distribute the load on a large steel column carrying 300 tons over a foundation bed with a max. pressure of 1 ton per sq. foot. It is desirable to limit the depth of the foundations to the minimum possible.

10. Design a dam 20' high for a reservoir.

11. If the dam in the last question were placed across a stream which in flood would overflow the crest of the dam to a height of 5', how would it affect the design?

12. A floor is required for an office—span 16', live load 40 lb per sq. foot. The floor may be of wood planks 3" thick on wooden beams 4' centres, or of concrete 4" thick on ribbed steel joists 6' centres.

Design the floor for one of the above cases.

HYDRAULICS.

Examiners— $\left\{ \begin{array}{l} \text{T. H. RICHARDSON, ESQ.} \\ \text{G. I. HUNTINGFORD, ESQ.} \end{array} \right.$

*Candidates are required to give their answers in their own words
as far as practicable.*

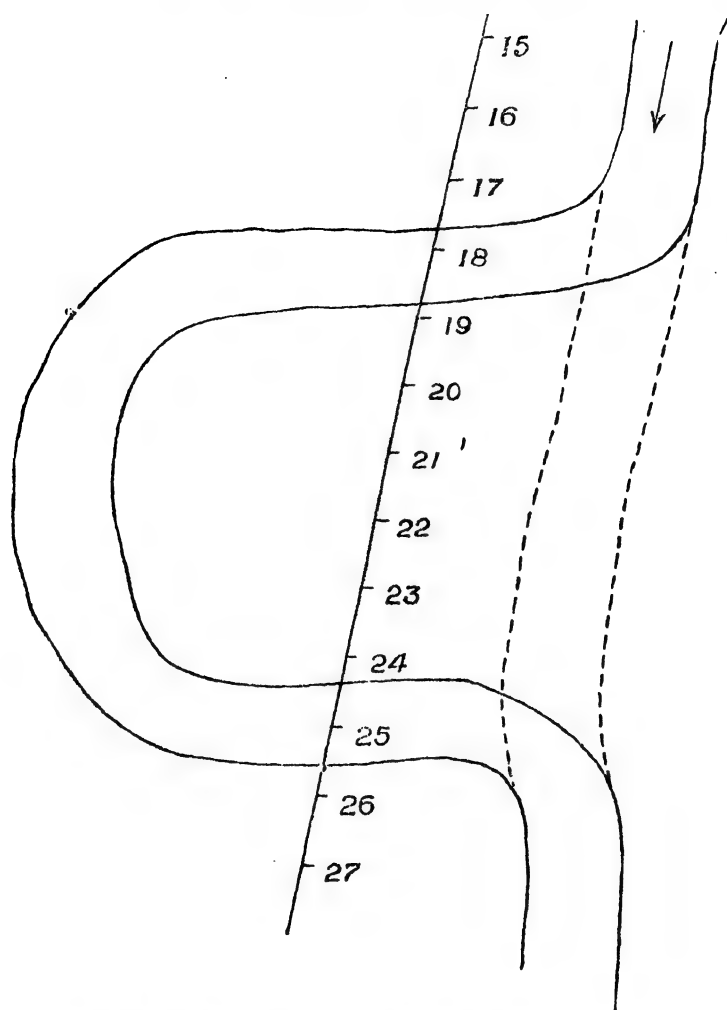
The figures in the margin indicate full marks.

*Molesworth, Trautwine, and Buckley may be used if brought
by candidate.*

Attempt only FOUR questions in each half.

FIRST HALF.

1. Design a channel to discharge 10 cusecs where $n = .025$, and the conditions being such as to give you a free choice of suitable slope. 50
2. (a) What are your ideas about Kutler's formula? 50
(b) On a certain small channel the result of a long series of experiments tends to show that the discharge you have estimated by means of Kutler's formula is too high. What would you conclude?
3. The alignment of a road crosses a loop of a river in the Bengal plains in two places as shewn in sketch involving two bridges. A member of the District Board, who is an authority on engineering, proposes to divert the river as shewn in dotted lines on the grounds that as the banks are low and the soil soft, the work will cost less than the cost of the two bridges. Write a short note approving or disapproving of the suggestion. 50



The numbers refer to your "thousands" pegs.

4. A 24" pipe culvert 40' long, laid on a gradient of $1/100$, is running with a depth of water of 23". Find its discharge. 50

5. The channel below the culvert in the last question is blocked by a boulder falling into it; this causes the water to rise 2" at the outlet. • 50

How much will it rise at the entrance?

SECOND HALF.

1. A 6" pipe, 300 ft. long, is laid at a slope of 30° and discharges 50
water freely into a reservoir, at the rate of 60 gallons per minute.

The inlet end of the pipe is plain cylindrical.

What is the total head due to the height and friction, and what
will be the nett horse-power of the engine to work the pump?

The pipe is a new one.

2. The Tunnel of a culvert of 10 ft. diameter is made in two halves, 50
an upper and a lower, each of one piece of concrete, the upper simply
resting on the lower, not being cemented to it. The tunnel passes
horizontally under a canal to carry flood water through. If the
water level is 20 ft. above the bottom of the tunnel, what is the force
tending to lift the top half?

How thick must the arch be to prevent being lifted if the concrete
weighs 120 lb per cubic foot?

3. A vertical sluice shutter hinged at its bottom edge is 10 ft. high 50
and 4 ft. wide. The water level on the upstream side is flush with the
top of the shutter and there is no water on the downstream side. The
shutter is held up by a horizontal chain attached to the centre of the
top edge. What is the tension on this chain?

4. What is a Venturi Meter? Give a description, illustrated by
sketches, showing the principle on which it works.

Show by an actual numerical example what information is ob-
tained from it, and how this is obtained.

How reliable would you expect the information to be, and on what
does the accuracy on the device depend?

5. A pipe of 3" diameter delivers water freely into an open cylin- 50
drical cistern, 20 ft. high and 10 ft. diameter, from a main in which
the pressure is $62\frac{1}{2}$ lb. per square inch.

There is a 4" circular hole in the centre of the bottom of the cistern.
At what height above the bottom of the cistern will the water level
remain?

Neglect friction and all coefficients of contraction, discharge, etc.

ENGINES AND MACHINERY.

Examiners— $\left\{ \begin{array}{l} \text{C. A. KING, ESQ.} \\ \text{J. LEESH, ESQ.} \end{array} \right.$

Only THREE questions to be attempted.

All questions of equal value.

FIRST HALF.

1. In a boiler trial, a continuous collection is made of samples of
the furnace gases as they leave the boiler, and a Volumetric analysis
of the samples collected gives

$\text{CO}_2 = 10.35\%$; $\text{O} = 8.1\%$; $\text{N} = 81.55\%$.

The composition of the coal used during the trial was

$87.3\% \text{C.}$, $3.7\% \text{H.}$, $1.4\% \text{O.}$, $2.3\% \text{N.}$,

and the remainder ash. Find the lbs. of air admitted to the furnace per lb. of coal burnt. Also, if the air temperature = 61°F. , and the escaping gases are at 753°F. , find the loss in B. T. U. in the waste gases per lb. of coal burnt.

Specific heat of

$\text{CO}_2 = \cdot 217$, of $\text{O} = \cdot 218$, of $\text{N} = \cdot 244$.

2. You are required to determine the average calorific value of a consignment of coal.

Explain clearly:—

- (a) The method of selecting and preparing a representative sample.
- (b) The method of setting up the apparatus and of determining its water equivalent.
- (c) The method of correcting for radiation.
- (d) The method of calculating the required calorific value.

3. What are the principal methods used for accelerating the rate of combustion of fuel in a boiler? Give the advantages and disadvantages of each.

What are the advantages of forced draught, and why does forced draught give a higher temperature in the furnace?

Describe briefly, with the aid of sketches, Howden's System of Forced Draught.

4. Sketch an arrangement of steam-pipes suitable for a Power Station of moderate capacity. Explain clearly how the pipes are supported and what arrangements are made for expansion and drainage. If you recommend any particular "System" enumerate carefully the advantages and the disadvantages of that system.

5. Illustrate, by means of line sketches, two kinds of reversing gears for steam engines. Indicate clearly the direction of rotation, and also how reversal of the engine is obtained.

SECOND HALF.

Only THREE questions to be attempted.

1. Give the theory of the Steam Injector and explain its working. Dry steam at a temperature of 333°F. is supplied to an injector; if the supply temperature of the water is 65°F. and the delivery temperature is 165°F. , find approximately the weight of water drawn into the injector per lb. of steam.

2. A steam-engine may be governed by controlling the cut-off or by controlling the initial pressure of the steam by means of a throttle valve.

Compare the two methods, showing clearly the effect on the indicator diagram in both cases, and explain how the governor acts. Sketch the two arrangements diagrammatically.

3. Sketch some form of "Steam Trap," and explain its action. Point out the advantages of the particular trap you describe as compared with any other steam trap. Where are such steam traps fitted, and why?

4. What is meant by the expression "Equivalent Torque" as applied to the case of a shaft subjected to combined twisting and bending? Deduce the formula for finding it.

A shaft transmits 50 H.P. at 135 revolutions. There is a bending moment on the shaft equal to $\frac{1}{3}$ ths of the twisting moment. Find the diameter of the shaft when the maximum stress is 10,000 lb. per sq. inch.

5. An engine has the following dimensions: stroke 18"; connecting rod 36"; travel of valve 4"; outside lap of valve 2"; inside lap of valve $\frac{1}{2}$ ". The angle of advance of the eccentric is $\sin^{-1}\frac{1}{8}$. Find the point of cut-off and draw the hypothetical indicator diagram. Initial pressure 100 lb., back pressure 20 lb. per square inch.

DRAWING.

Examiners—{ D. R. G. TURNBULL, ESQ.
W. J. KEIR, ESQ.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Candidates must answer the FIRST and any ONE of the other questions.

1. The concrete in foundation of an outer long wall of a two-storied building is 5' 6", and that of the inner walls is 6' 6" wide, both being at a depth of 4' 6" below ground level on good soil. The distance between their centres is 15' 8". Draw to a scale of $\frac{1}{4}$ inch to a foot the section of the walls required and the rooms formed by them, taking the weight supported at a ton on the square foot, and the spacing of the roof and floor joists 5' 6" apart from centres. The sections of the joists and tees used should be stated on them, also their weight per foot. 60

2. Draw to a scale of 1" to a foot an easily put together and removed Form for the construction of a reinforced column 12" square. A portion of the elevation and the plan are to be shown. 40

3. Sketch any three of the following:— 40

(a) A vertical section through three or four treads of a wooden staircase.

(b) The junction of a parapet with the roof and cornice, also the down water-pipe, and portion of the wall supporting them, in a single section.

(c) A section through an architrave consisting of joists cased in wood, and another cased in plaster. The ends of the architraves rest on 2' 1" walls.

(d) A vertical section through a splayed and revealed window with a sill moulding. The window is a glazed one.

SECOND HALF.

1. Draw in plan and elevation to $\frac{1}{2}$ " scale, the corner of a stone building with a Gothic angle buttress (see plan Diagram No. 1). Height of buttress 12', plinth 1' 6". There is an offset at $\frac{1}{2}$ of its height from ground; the coping of offset and top of buttress to be set at an angle of 50° with horizontal. Shew the jointing. 20

2. Diagram No. 2 is the plan and elevation of a Doric capital; 20
draw same to double the scale in isometric projection, shewing correctly the soffit of entablature.

3. Draw to the same enlarged scale as in question No. 2, the plan 30
and section of the Base of a Doric column.

4. A chimney stack of 6' 0" \times 4' 0" sides, rising to ridge level, 30
penetrates one side of a roof of 52° pitch and 40' span. The long side of stack is parallel to the ridge and is built flush with the external wall of building.

Draw the front elevation of chimney shewing its shadow on the roof cast at the conventional angle of 45° to $\frac{1}{8}$ " scale, with plan and diagrammatical section through roof. Top of stack to be finished with a simply moulded coping.

B.E. Examination.

1918.

(Non-professional Section).

MATHEMATICS.

Examiners— $\left\{ \begin{array}{l} \text{P. GANGULY, ESQ., M.A.} \\ \text{S. N. MAITRA, ESQ., M.A.} \\ \text{BABU TULSICHARAN BOSE, M.A.} \end{array} \right.$

FIRST PAPER.

Candidates are required to give their answers in their own words as far as practicable.

All the questions are of equal value.

Not more than THREE questions to be attempted from each half of the paper.

FIRST HALF.

1. When the co-ordinates x, y of a moving point are given functions of the time t , how can we calculate its velocity and acceleration?

If $x = a(\cos \theta + \theta \cdot \sin \theta)$, $y = a(\sin \theta - \theta \cdot \cos \theta)$ and θ increases at a uniform rate w , prove that the velocity of the point is aw .

2. Prove that the moment of inertia of a lamina about any axis in its own plane is equal of the moment of inertia about a parallel axis through its centre of mass plus the product of the mass of the lamina into the square of the distance between the two axes.

3. Prove the equations

$$s = c \tan \psi \text{ and } y = c \sec \phi$$

for the common catenary.

4. Find the centre of pressure of a triangle wholly immersed in a homogeneous liquid.

5. Define metacentre, surface of buoyancy, surface of floatation.

Prove that the positions of equilibrium of a floating solid are obtained by drawing normals from the centre of gravity of the solid to the surface of buoyancy.

SECOND HALF.

1. Solve

$$(a) \frac{dy}{dx} = \frac{2x+y-2}{3x+y-3}, \quad (b) (D-1)(D-2)y = 4 \cos 2x.$$

2. Solve

$$(a) \frac{dy}{dx} + \frac{y}{x} = \frac{y^n}{x^n}.$$

$$(b) (D-1)^2 y = e^x.$$

3. Find the general integral and singular solution of

$$(a) y = px + 2\sqrt{p}, \text{ when } p = \frac{dy}{dx}.$$

$$(b) y = px + a\sqrt{1+p^2}.$$

4. Integrate

$$(a) \int \frac{\sqrt{a^2 - x^2}}{x^4} dx, \quad (b) \int_0^a \sqrt{a^2 - x^2} dx,$$

$$(c) \int_0^{\pi} x^3 \sin ax \, dx.$$

5. (a) A hollow cone, whose semi-vertical angle is 30° , is held with its axis vertical and vertex downwards, and water is poured into it at the steady rate of 3 cubic feet per minute. Find the rate at which the depth (measured along the axis) of water is increasing when that depth is 3 feet.

(b) If s be the length of an arc of the catenary

$$y = c \cosh \frac{x}{c}$$

measured from the lowest point, prove that the area bounded by this arc, by the vertical ordinates at its ends, and by the horizontal line at a depth c below the lowest point, is equal to cs .

MATHEMATICS.

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

All the questions are of equal value.

Not more than THREE questions to be attempted from each half of the paper.

FIRST HALF.

1. Prove that in general a system of forces in one plane can be reduced to two parallel forces acting at two given points in the plane. State the exception to the rule. If a uniform beam of weight 10 lbs. and 3 feet long rests on two rough parallel bars (coeff. of friction .3) in a horizontal plane at a distance 2 ft. apart and at right angles to them, determine the position of the beam in order that the couple in a horizontal plane which can be applied to it without disturbing it may be the greatest possible.

Determine also the magnitude of this couple.

2. State the laws of limiting friction.

A ladder is placed with one end on a rough horizontal floor and the other against a rough vertical wall, the vertical plane containing the ladder being perpendicular to the wall. Find the positions of equilibrium of the ladder.

3. A straight smooth tube revolves with angular velocity ω in a horizontal plane about one extremity which is fixed. If initially when $t=0$, a particle inside it be at a distance a from the fixed end and moving with velocity V along the tube, show that its distance at time t is

$$a \cosh \omega t + \frac{V}{\omega} \sinh \omega t.$$

4. A rod movable about one end falls in a vertical plane, starting from a horizontal position. Prove that the pressure on the end is increased to 2.5 times the weight of the rod when it reaches the vertical position.

5. Find the time of oscillation of a compound pendulum consisting of a rod of mass m and length a , carrying at one end a sphere of mass M and diameter 26, the other end of the rod being fixed.

SECOND HALF.

1. State and explain D'Alembert's Principle.

A rod revolving on a smooth horizontal plane about one end, which is fixed, suddenly snaps in two; describe accurately the subsequent motion of each portion.

2. Find the centre of gravity of the perimeter of a triangle. Find the centre of gravity of a trapezium whose parallel sides are 6 inches and 14 inches long and the other sides are each 8 inches long.

3. A heavy elastic string, whose natural length is $2\pi a$, is placed round a smooth cone whose axis is vertical and whose semi-vertical angle is α . If W be the weight and λ the modulus of the string, prove that it will be in equilibrium when in the form of a circle whose radius is

$$a \left(1 + \frac{W}{2\pi\lambda} \cot \alpha \right).$$

4. A man drags behind him a rope 20 ft. long, the hand being 2.5 ft. above the ground; if he is walking at the rate of 4 miles per hour, find the rate at which he is doing work. $\mu=1$, weight of rope=5 lbs. per foot-run.

5. A solid hemisphere is placed with its base inclined to the surface of a liquid, in which it is just totally immersed, at a given angle α ; shew that the resultant thrust on the curved portion of the surface will be equal to twice the weight of the liquid displaced if $\tan \alpha=2$.

THIRD PAPER.

APPLIED PHYSICS.

Examiners— { D. B. MEEK, ESQ., M.A.
 { S. N. MAITRA, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

SIX questions only to be attempted, three of which must be taken from the first half, and three from the second half.

All questions are of equal value.

FIRST HALF.

1. Describe in outline any method of mechanical refrigeration, drawing a sketch diagram to indicate a possible cycle of operations.

2. What is meant by the coefficient of performance of a refrigerating machine?

Obtain from thermodynamic principles the coefficient of performance of an ideally perfect refrigerating engine.

3. Describe the construction and mode of action of a (1) radiation pyrometer and (2) a resistance pyrometer.

Give briefly the theory underlying (2), and explain how the constant of the reduction formula is found.

4. Define the terms:—Mean illumination of a surface, intrinsic brightness of a source, mean spherical candle-power, and the polar curve of distribution of light. Explain, with diagrams, any graphical method of finding the mean hemispherical candle-power of a source.

SECOND HALF.

1. Describe the Lummer-Brodhun photometer.

A standard 32 c.p. lamp is used to test an incandescent lamp which takes a current of .35 amp. with a difference of potential of 85 volts between its terminals. If their respective distances from the photometer screen be 177.5 cms. and 92.5 cms., find out the number of Watts per candle-power absorbed by the lamp under test.

2. How could you calculate Poisson's ratio by means of the distortion which is produced in the cross-section of a uniform rectangular bar when the latter is bent?

Give a concise account of some practical method of finding this ratio by the bending of a beam of rectangular section.

3. Explain Searle's dynamical method of finding Young's modulus or the torsional rigidity of a wire.

4. Prove the Second Latent Heat equation.

Assuming the empirical equation

$$L = 605.5 - .695T,$$

where L is the latent heat of steam at temp. T , and applying this to saturated steam, shew that the specific heat of saturated steam is negative at all moderate temperatures.

What is the physical meaning of this result?

FOURTH PAPER.
GEOLOGY AND MINERALOGY.

Examiners—{ G. DE P. COTTER, ESQ.
E. H. ROBERTON, ESQ.

*Candidates are required to give their answers in their own words
as far as practicable.*

FIRST HALF.

Either (a) or (b) of each question only to be answered.

Each question carries equal marks.

1. (a) Describe the characteristics of various types of volcanic vents on the earth's surface.

(b) What is a glacier? Trace the action of a glacier from its source to its melting point.

2. (a) Discuss the origin and conservation of petroleum accumulations in the earth's strata. Apply your answer to the deposits of the Indian Empire.

(b) Of what use are the following minerals, and where are they found in India:—Alum, Salt, Gypsum, Asbestos, Sandstone, Steatite, Quartz sand?

3. (a) Give some account of the Vindhyan system of rocks.

(b) What do you mean by the term Gondwanaland? Give an account of the lower Gondwanas.

SECOND HALF.

Answer either part (a) or part (b) of each question.

The questions carry equal marks.

1. (a) If you were to find a fault exposed in the side of a cliff or in a mine or quarry, what signs would you search for in order to determine which was the downthrow side?

(b) When outcrops of gently dipping strata are accurately mapped in the field, it is found that in hilly country the outcrops are much more sinuous than in country which is fairly level. In hilly country the gently dipping outcrops either bend up or down the valleys. Why is this?

2. (a) What is the refractive index of a mineral, and what is the birefringence of a mineral? In which of the crystalline systems is birefringence found?

(b) Explain the method of representing the faces of a crystal by spherical projection. What are the advantages of this method? Draw the spherical projection of any crystal you like to choose.

3. (a) What are the chief blowpipe reactions for arsenic, antimony, boron, chromium, calcium, aluminium, metallic sulphides, manganese, cobalt, iron?

(b) Give the chemical composition, hardness, crystalline system, and colour of calcite, apatite, hematite, sphalerite, mispickel, cinnabar, witherite, corundum, gypsum, rocksalt.

FIFTH PAPER.

TECHNICAL CHEMISTRY (METALLURGY).

Examiners—{ R. N. SEN, ESQ., M.A.
N. BRODIE, ESQ.

Candidates are required to give their answers in their own words as far as practicable.

Not more than THREE questions to be attempted in each half.

All questions carry equal marks.

FIRST HALF.

1. Write what you know about the influence upon the strength, hardness and the melting point, of small quantities of foreign substances present in ordinary tool-steel and foundry iron.

2. What is Pig iron? Give an account of the manufacture of Pig iron from the ores.

3. What is a regenerative furnace, and what are its advantages? Briefly describe with a diagrammatic sketch any furnace of this type.

4. What is meant by the calorific power of a fuel, and how is it determined?

Calculate according to the practical rule the calorific power of a fuel containing 10 per cent. ash, 84 per cent. carbon, 3 per cent. hydrogen, 2 per cent. oxygen, and 1 per cent. nitrogen; assuming that 1 gram of hydrogen produces 34,180 cal. and 1 gram of carbon produces 8080 cal. when completely burnt.

5. Enumerate and explain the various methods of measuring high temperatures. Describe any form of pyrometer you know.

SECOND HALF.

1. Give an account of the destructive distillation of wood and of the products obtained thereby.

2. State what you know of the uses of the more important industrial alloys containing tin.

3. Give an account of the Bessemer process, explaining carefully the different sorts of pig iron required for acid and basic furnace linings.

4. Write a specimen analysis of blast-furnace slag. How would you propose to use such a slag for the manufacture of Portland cement?

5. Give examples of the application of electrolysis to metallurgical operations.

Preliminary Scientific Examination.

NOVEMBER, 1918.

CHEMISTRY.

RAI CHUNILAL BASU, BAHADUR, M.B., I.S.O.,
F.C.S.
Examiners—{ ASST-SURGEON BENIMADHAB CHAKRABARTI,
B.A., L.M.S.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

*THREE questions only to be answered from each half; the first
question in each half is compulsory.*

FIRST HALF.

1. How is Sulphur Dioxide ordinarily prepared? How would you liquefy it? What would happen if you pass it into—
(a) solution of Potassium Permanganate;
(b) Chlorine water;
(c) Nitric Acid?
State its chief uses. 80
2. Write a short essay on the Valency of Elements. 60
3. Describe Leblanc's process of the manufacture of Carbonate of Soda. State its properties and chief uses. 60
4. How would you prepare the oxides, chlorides and nitrates of Mercury? Give their formulæ and physical characters. 60

SECOND HALF.

1. How is Ozone ordinarily prepared? Describe its properties and tests. 80
How would you prove that three volumes of oxygen condense to form two volumes of ozone? Sketch the apparatus you would use for this experiment.
2. Give the formulæ of the following substances:—
(a) White vitriol; (b) Nitre; (c) Pyrolusite; (d) Sal ammoniac. 60
What would happen if you heat them (1) alone, and (2) with concentrated Sulphuric Acid? Name the principal products formed in each case.
3. What are "Salts," and how are they classified? State briefly the general modes of formation and characters of each class, illustrating your answers by examples. 60

4. How would you prepare the following compounds? State 60 their properties and uses, and give one chemical test for each :—

- (a) Chlorine peroxide ;
- (b) Hyposulphite of soda ;
- (c) Ferric chloride ;
- (d) Silver nitrate.

PHYSICS.

Examiners—{ TULSIDAS KAR, ESQ., M.A.
NIBARANCHANDRA RAY, ESQ., M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

Only THREE questions to be attempted in each half.

The questions carry equal marks.

FIRST HALF.

1. Describe Atwood's machine, and explain how it can be used to investigate the laws of falling bodies.

2. Deduce the conditions of equilibrium of a floating body.

Find the specific gravity of a wooden cylinder which floats with $\frac{1}{10}$ of its length above the surface of water.

3. Describe the human ear, and explain the functions of its different parts in the transmission of sound vibrations.

4. Explain a method of proving experimentally the relation between the pressure and the centigrade temperature of a quantity of air.

A given quantity of air occupies 1000 cc. at 100°C. and 800 mm. Find its volume at 30°C. and 760 mm.

5. Define specific heat. Describe the method of mixture for finding the specific heat of a liquid. Deduce the formula.

SECOND HALF.

6. Obtain the relation between the object distance, image distance, and the focal length in case of reflection from a concave mirror. Explain from the formula the changes in the nature of the image when the object is moved from a very great distance to the pole of the mirror.

7. Describe the construction of the compound microscope, and explain the functions of the different parts, drawing a neat schematic diagram showing the course of the typical rays through it.

8. Describe any influence machine for producing statical electricity, and explain its action.

9. Describe the tangent galvanometer and obtain a formula for it. Explain how its constant can be determined.

10. Give a neat sectional diagram of Ruhmkorff's coil, and explain its action and use.

BOTANY.

Examiners—{ DR. EKENDRANATH GHOSH, M.D., M.Sc.
SAHAYRAM BOSE, ESQ., M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

Diagrams should be neatly drawn with black lead pencil.

FIRST HALF.

Only two questions to be answered.

1. How do monocots differ from dicots ? 50
2. What is Carbon-assimilation ? How is it carried on ? How do 50
green plants obtain their nitrogen ?
3. Contrast the sexual reproduction of Spirogyra and Vancheria. 50

SECOND HALF.

Only two questions to be answered.

1. Describe briefly the Nat. Ord. Apocynaceæ. Give some 50
examples of common plates.
 2. Enumerate and briefly describe the various forms of Indefinite 50
Inflorescence.
- Describe the changes in the stele which take place in Dicot. root in 50
secondary growth.

ZOOLOGY.

Examiners—{ DR. EKENDRANATH GHOSH, M.D., M.Sc.
DR. K. S. RAY.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

FIRST HALF.

Two questions only to be attempted.

1. Describe in detail the life-history of *Monocystis*, giving explana- 50
tory illustrations.
2. Compare the excretory systems of the Earthworm, *Palaemon* 50
Unio, and the Cockroach.

3. What do you understand by the following terms ?— 50

Proctodaeum, cerci, cindocil, coelom, chromosome, organ of Bojanus, gonapophysis, gizzard, typhlosole, telson.

SECOND HALF.

Only two questions are to be answered.

1. Describe and compare the central Nervous System of Bhekti 50
and Toad.

2. Describe the development of a vertebrate eye. Illustrate your 50
answer with diagrams.

3. • Enumerate the membrane and cartilage bones formed in 50
connection with the first and second visceral arches, adding a short
note on each.

First M.B. Examination.

NOVEMBER, 1918.

ANATOMY.

Examiners— { LT.-COL. R. P. WILSON, F.R.C.S., I.M.S.
 { ASST.-SURGEON NANILAL PAN, M.B. •

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

Only TWO questions are to be attempted in each half.

FIRST HALF.

1. Describe the superficial origin, course and distribution of the 150
Oculomotor nerve.
2. Describe the Internal Jugular Vein; mention its tributaries 150
and give its relations.
3. Give short descriptions of the following :—Ventricle of the 150
larynx; Valvulae Conniventes; Fossa Ovalis (saphenous opening);
Ligamentum Arteriosum; Corpora Mamillaria; Axillary Sheath.

SECOND HALF.

1. Describe the origin, course and distribution of the Obturator 150
nerve.
2. Describe Hunter's Canal (Adductor Canal). Enumerate its 150
contents and indicate their relative positions.
3. Give the origin, nerve supply and action of the following 150
muscles :—
 - (1) Gastrocnemius.
 - (2) Mylohyoideus.
 - (3) 1st Dorsal interosseous of the hand.

PHYSIOLOGY.

Examiners— { MAJOR D. McCAY, M.B., I.M.S.
 { CAPT. J. A. SHORTEN, I.M.S.

Candidates are required to give their answers in their own words as far as practicable.

Full marks—600.

Only two questions are to be answered in each half.

All the questions are of equal value.

FIRST HALF.

1. Trace the circulation of the blood in the foetus and describe the changes which take place at birth.
2. Give an account of the co-relation between the different digestive enzymes and describe the mechanism by which they work.
3. Classify nerve cells and describe the anatomical limitation of the upper and lower motor neurones.

SECOND HALF.

1. Give a concise description of the organ of Corti in the internal ear, and give a short account of the two best known theories of hearing.
2. Give a concise account of the structure and functions of the spleen.
3. What are the functions of the cerebellum? Describe briefly the methods by which they have been investigated.

PHARMACOLOGY.

Examiners— { LT.-COL. B. H. DEARE, M.B., D.P.H.,
 { M.R.C.P., I.M.S.
 { DR. BIDHANCHANDRA RAY, B.A., M.D.,
 { F.R.C.S., M.R.C.P.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

1. Enumerate the "Anthracene Purgatives," giving the official preparations and doses of each variety.
 2. Discuss the therapeutic uses of the Zinc Salts.
- Or,*
3. Enumerate the "Vegetable Bitters," and discuss briefly their pharmacological action and therapeutic uses.

SECOND HALF.

1. What are Antispasmodics ? How do they act ? Give examples of each group.
2. Describe the action and uses of Apomorphine Hydrochloridum.
Or,
3. Give the official preparations and physiological action and uses of Silver Salts.

ORGANIC CHEMISTRY.

RAI CHUNILAL BASU, BAHADUR, M.B., I.S.O.,
Examiners— F.C.S.
 R. N. SEN, Esq., M.A., M.Sc., F.C.S.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Question No. 1 and two others in each half to be answered.

FIRST HALF.

1. Describe the experiments by which you can show that Urea 40 contains Nitrogen, Carbon and Hydrogen.
2. Starting with Carbon and Hydrogen, how would you prepare 30 ethyl alcohol in the laboratory ? Give equations of the reactions that take place in the various stages of the process.
3. What is phenol, and how would you prepare it on a commercial 30 scale ? Describe its properties, tests and uses.
4. State the general modes of formation and principal characters 30 of the members belonging to the following groups of Organic Compounds:—

(a) Aldehydes ; (b) Amines ; (c) Nitro-compounds.

SECOND HALF.

1. How would you detect and estimate Nitrogen in a food-stuff ? 40 Name the nitrogenous constituents in the following:—
 (a) Milk ; (b) Wheat-flour ; (c) Pulses.
2. Describe the preparation and purification of Methyl Alcohol. 30 How would you distinguish methyl alcohol from ethyl alcohol ?
3. What are the chief sources of glycerol, and how is it obtained ? 30 What products are formed (1) by heating glycerol ; (2) by the action of strong Nitric Acid on glycerol ; (3) by heating glycerol with Oxalic Acid ?
4. Describe in detail the preparation of a pure sample of (1) Caf- 30 feine ; (2) Strychnine. Briefly state their characteristic properties and tests.

Final M.B. Examination.

NOVEMBER, 1918.

MEDICINE.

Examiner—RAI UPENDRANATH BRAHMACHARI, BAHADUR,
M.A., M.D., PH.D

FIRST PAPER.

*Candidates are required to give their answers in their own words
as far as practicable.*

FIRST PAPER.

1. What are Rigors or Chills ? Under what conditions do they occur ?
2. The deep cardiac dullness is increased transversely ; to what conditions might this be due, and how would you distinguish them ?

SECOND HALF.

3. What is Influenza ? Mention its etiology, symptoms, complications, and diagnosis.

4. To what disease does the *Filaria Bancroftii* give rise ? Describe an attack of filarial fever. Give its diagnostic features.

Or,

5. Give the symptoms, signs and diagnosis of congenital hydrocephalus.

MEDICINE.

SECOND PAPER.

*Candidates are required to give their answers in their own words
as far as practicable.*

FIRST HALF.

1. Give the symptoms, signs and diagnosis of acute miliary tuberculosis in a child.

2. What is Cholaemia ? Under what conditions is it met with ? Describe the symptoms ; from what other conditions has it to be distinguished ?

SECOND HALF.

3. Give the etiology, signs, symptoms and diagnosis of Pyelitis.
4. Give the symptoms, physical signs and diagnosis of an aneurism of the abdominal Aorta.

Or,

5. State all you know about Plumbism (Lead poisoning).

SURGERY.

Examiners— { DR. SURESPRASAD SARBADHIKARY, C.I.E., B.A.,
M.D.
{ LT.-COL. C. R. STEVENS, M.D., F.R.C.S., I.M.S.

FIRST PAPER.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

FIRST HALF.

**Two questions only to be answered.*

1. Describe the surgical conditions of which jaundice may be a symptom. 150
2. Describe the signs, symptoms, diagnosis of cancer of the lower lip, and its treatment. 150
3. Describe a case of adenoids of the naso pharynx, with special reference to the more remote effects. 150

SECOND HALF.

4. Describe the surgical conditions in which blood-stained fluid may be found in the peritoneal cavity. 150
5. Describe the signs, symptoms and progress of a case of tuberculous disease of the hip joint in a boy of ten. Describe the treatment. 150

SURGERY.

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

1. What are the conditions which necessitate the immediate extirpation of the globe of the eye? 150
2. Describe the modern treatment of syphilis in all its stages. 150

SECOND HALF.

Two questions only to be answered.

3. Describe the causes of painful defæcation, and the treatment. 150
4. Describe the pathology, symptoms, differential diagnosis and treatment of a rodent ulcer. 150
5. Describe a case of talipes equino-varus in a child of 3 months, and the treatment. 150

MIDWIFERY.

Examiners—{ MAJOR H. B. STEIN, M.D., I.M.S.
DR. KEDARNATH DAS, C.I.E., M.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

1. Describe the character of the Liquor Amnii? What are its sources and uses? Describe the diseases of the Amnion. 125

Or,

Describe the normal full-term placenta. Mention its abnormalities and what are its functions.

2. What abnormal conditions may arise in micturition 125
 - (a) in Pregnancy;
 - (b) during Labour;
 - (c) in the Puerperium?

How would you treat them?

SECOND HALF.

3. How will you diagnose a Face Presentation, the presenting part being fixed and the membranes ruptured? What is the prognosis? How will you manage the case? 12

4. What do you understand by the term Cystocele? How does it arise? What are its symptoms and treatment? 125

PATHOLOGY.

Examiners— { LT.-COL. SIR LEONARD ROGERS, KT., C.I.E.,
M.D., F.R.C.S.
DR. TARAKNATH SUR, M.D.

Candidates are required to give their answers in their own words as far as practicable.

Only FIVE questions to be attempted.

All questions carry equal marks.

PART I.

1. Describe the naked-eye appearances of the common forms of ulceration of the large intestine, and the microscopical characters in any two of them.

2. Describe the organism of Syphilis, the methods of its recognition, and its differentiation from other spirochetes which are likely to be confounded with it.

3. Describe the regeneration of (1) nerve tissue, (2) bony tissue, (3) muscle tissue.

PART II.

4. State precisely the mode of origin of gall-stones, and briefly describe the character of the morbid lesions they produce. 8 8

5. Describe and differentiate the changes in the blood in the various forms of Primary Anæmia.

6. Describe the varieties of Sarcoma and note the position of the body in which they are commonly found.

. HYGIENE.

Examiners— { DR. C. A. BENTLEY, M.B., D.P.H.
 { DR. TARAKNATH MAJUMDAR, L.M.S., D.P.H.

*Candidates are required to give their answers in their own words
 as far as practicable.*

Equal value is attached to each question.

Two out of THREE questions to be answered from each half.

FIRST HALF.

1. Mention any diseases which are spread by the contamination of the soil by human faeces. Describe any one of these diseases which is prevalent in Bengal, and indicate the measures which should be taken for its prevention.

2. Describe any outbreak of cholera or enteric fever of which you have heard or have had personal experience; explain its origin and mention the measures which will prove effective in preventing such attacks.

3. Explain how you would determine whether a town or village was malarious or not. State clearly what are the measures which may be undertaken for the prevention of malaria, illustrating your answer if possible from facts which have come under your personal knowledge or observation.

SECOND HALF.

4. What are the principal epizootic diseases that are communicable to man? In what way are they communicated?

5. Sketch and describe the form of a water-closet you would recommend for (a) an ordinary house, (b) a large workshop.

6. What preventive measures should be taken by you to stamp out a local outbreak of small-pox in a small town?

MEDICAL JURISPRUDENCE.

Examiners— { MAJOR N. P. SINHA, M.B., M.R.C.P., I.M.S.
 { RAI LALBIHARI GANGULI, BAHADUR, M.B.

*Candidates are required to give their answers in their own words,
 as far as practicable.*

The figures in the margin indicate full marks.

Only two questions to be answered from each half-paper.

FIRST HALF.

1. Describe fully what you understand by Rigor Mortis, Delusions, 100
 and Paranoia.

How would you proceed to examine a case of Paranoia?

2. Describe fully the signs, symptoms and treatment of Snake poisoning : also the post-mortem appearances. 100
3. How would you proceed to examine in a case of alleged Rape ? 100

SECOND HALF.

1. A man is said to have been murdered by strangulation with a cord : What appearances would confirm the allegation ? 100
2. Are the following conditions of any real value in determining the time of death in Bengal, and if so, how ? 100
 - (a) Rigor Mortis,
 - (b) Saponification,
 - (c) Putrefaction,
 - (d) Degree of digestion of Stomach contents.
3. What is Strychnine ? 100

Carefully distinguish strychnine poisoning from any disease that it may resemble.

Does failure to detect the poison in the viscera absolutely negative death from strychnine poisoning ? Briefly discuss the point.

M.C. Examination.

1918.

FIRST PAPER.

Examiner—DR. KEDARNATH DAS, C.I.E., M.D.

All the questions are to be answered.

Time allowed—4 hours.

1. Explain fully the various causes of death of the fœtus during labour. Discuss how various drugs administered to the mother may influence foetal death.

2. Describe, in detail, the modifications which the ovum may undergo, due to the unequal development of uniovular twins

3. Pregnancy and Tuberculosis. Discuss the effect of one on the other. What are the problems in prophylactic consideration of pregnancy, complicated by tuberculosis? What would be your treatment of pregnancy, labour and puerperium in the tuberculous?

4. What do you understand by the term "contraction ring"? What is the cause of it? Give the prognosis and treatment.

SECOND PAPER.

Examiner—MAJOR H. B. STEIN, M.D., I.M.S.

Time allowed—4 hours.

You receive the following letter from a doctor:—

May, 8, 1918.

DEAR SIR,

I am advising a lady here, a Mrs. X, to go to you for treatment and operation, if necessary.

She missed her March and April periods and on May 1st had a profuse discharge, almost a flooding, thin, watery, no clots. This lasted 12 hours and she felt much better. On May 7th again she had another flooding (apparently normal menstrual discharge) lasting 12 hours. In April about 12th she thought she might be pregnant, and I examined her and found the uterus enlarged and markedly retroverted. I rectified this but it fell over again, and on May 2nd I rectified it again and put in a fair-sized ring. After this the uterus was readily felt through the abdominal wall, well above the pubis. It felt irregular with a marked irregular projection above and to the right of the fundus. She had no pain, a very slight rise of temperature (for last 10 days) 99°4 F. or so. During the flooding, she had practically no pain, no feeling of bearing down, etc., beyond a slight tenderness now and again, such as she

normally has at menstrual periods. At present the uterus is felt three inches below umbilicus, inclined to be boggy, with hardness and irregularity on right side. Temperature is normal. No signs of pregnancy in breasts or otherwise, no tenderness, no softening of cervix, but signs of former erosion. The ring was removed on the 7th May before the flooding occurred.

She has had 2 children, the youngest 19 months of age.

The following is the history of the periods recently:—

December (1917). Normal.

January (1918). Normal, except rather less than usual.

February 10th. Normal, except less than usual.

March 6th. Missed.

April 3rd. Missed.

May 1st. Flooding.

A specialist examined her on May 7th and thought it might be an ovarian cyst complicating pregnancy.

Yours truly,

On her arrival on 12th May you examine and find her pale and delicate-looking. The abdominal tumour reaches almost to the level of the umbilicus. The breast signs of pregnancy are negative.

Bimanual examination reveals no tumour, distinct from the main mass which appears to be the uterus. Hegar's sign of Pregnancy is doubtful, but as the patient is suffering from a dark blood discharge your examination is necessarily very gentle. No fetal heart sounds can be heard. A uterine souffle is heard.

Comment on this case. Discuss the bearing of the various observations on the diagnosis. Give your clinical diagnosis and the evidence for and against it.

ANATOMY, PHYSIOLOGY, EMBRYOLOGY AND PATHOLOGY IN RELATION TO OBSTETRICS AND GYNAECOLOGY.

Examiner—LT.-COL. SIR LEONARD ROGERS, KT., C.I.E., M.D.,
F.R.C.S., I.M.S.

All the questions carry equal marks.

Time allowed—4 hours.

1. Describe the anatomical and pathological conditions which predispose to extrauterine foetation.

2. Describe the naked-eye and microscopical characters of the tumours arising from embryological remains in the female genital organs, and indicate their mode of origin.

3. Discuss the diagnostic indications which may be derived from microscopical examinations of curettings of the uterine mucous membrane.

GYNAECOLOGY.

Examiner— { MAJOR H. B. STEIN, M.D., I.M.S.
DR. KEDARNATH DAS, C.I.E., M.D.

All the questions are to be answered.

The answers to the two halves are to be written in SEPARATE books.

Time allowed—4 hours.

FIRST HALF.

1. A married woman aged 47 states that she was delivered of a full-term male child 27 years ago. This was said to be her only pregnancy. The fact that she ever bore a child is denied.

You are asked (1) whether you could tell, by examination of the woman, if she had actually borne a full-term child; and (2) if you could, to specify in detail each of the facts on which you rely.

Discuss the points in full.

2. In the treatment for "prolapse" of the uterus, the operation of vaginal hysterectomy has often been performed. Do you agree with the rationale of this operation for "prolapse"? Discuss any points there may be in favour of or against this particular operation.

SECOND HALF.

3. Discuss the treatment of "Salpingitis," acute and chronic.

4. A Bengali patient aged 16 is brought to you for treatment as she never menstruated. How would you proceed to ascertain the possible causes which may have produced such a condition?

M.D. Examination.

1918.

MEDICINE.

FIRST PAPER.

1. Discuss in detail the sensory and motor disturbances that may result from syphilitic lesions of the autonomic and sympathetic nervous systems.
2. Explain the symptoms of cerebellar abscess in the light of the pathological conditions associated with it.
3. Write a dissertation on (i) vascular troubles in later life, (ii) recent cardiographic observations in any two of the following :—
(a) Toxic Goitre, (b) Intraventricular heart block and Myocardial disease, (c) Mitral Stenosis in its various stages.

MEDICINE.

SECOND PAPER.

1. Give a minute and critical survey of the inoculation experiments and serological researches that have been made in leishmaniasis with special reference to their bearing on the diagnosis and immunity in the disease.
2. Discuss in detail the clinical and bacteriological features of the epidemic that is prevailing in Calcutta under the name of Influenza epidemic, embodying in your answer any conclusions that you may have arrived at from personal study.
3. Comment on the following case :—
Patient, a young man, was admitted into hospital with intense dyspnoea and stridor. He gave history of an attack of fever a few days previously attended with rigors and acute pain in the right side of his chest.
Physical examination of the chest revealed sucking in of the suprasternal and substernal regions during inspiration. Laryngoscopic examination showed obliquity of the larynx and oedema of the cords. After a few days there was difficulty in swallowing food and the voice became somewhat dull but there was no distinct aphonia. There was visible collateral circulation over the upper thoracic region. The pupils were somewhat unequal. Blood examination showed slight leucocytosis. After some days' stay in hospital he was seized one night with violent cough followed by expectoration of a blood-stained material and marked amelioration of the symptoms. A few rales were now audible in the base of the left lungs with slight impairment of resonance in the same region. Urine showed presence of albumen with casts. On culture of the urine no growth was obtained. The fever diminished for a few days, but

it rose again and for some days there was inverse type of temperature. One night he complained of intense pain in the stomach and vomited about $1\frac{1}{2}$ pints of brownish fluid and there was melaena. Subsequently delirium and stiffness of the neck set in. On Lumbar puncture about an ounce of clear fluid was removed with marked amelioration of the delirium for two days. Subsequently he began to suffer from fever of an intermittent nature coming on with rigors and assuming a tertian type on some days. The spleen was enlarged. A systolic bruit was audible at the apex of the heart. In a few days the patient passed into a typhoid state and died. Blood culture gave negative results.

Other special examinations—ophthalmoscopic examination nothing characteristic. Von Pirquet's tuberculin-test indefinite. Widal reaction for typhoid—partial 1 in 20.

PATHOLOGY.

The questions all carry equal marks.

1. Discuss the relationship of local and general oedema to pathological lesions affecting the veins and lymphatics respectively.
2. Describe the naked eye and microscopical characters of syphilitic lesions of the brain.
3. Describe the exact part played by insects in the transmission of—
 1. Plague.
 2. Typhus fever.

MENTAL DISEASES.

1. Discuss the recent concepts of the neuroses. Write what you know about war neuroses. Criticise the recent ideas about 'erogenous zones' and their bearing on the neuroses.
 2. Write what you know about mental disorders associated with pathological changes in the sexual and endocrine glands, and in diseases due to abnormalities in the secretion of the latter. Also discuss aphasia in relation to mental disease.
 3. Write a dissertation on the psychoses of prisoners.
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M.L. Examination.

1918.

HINDU LAW.

Examiner—HON'BLE MR. JUSTICE NALINIRANJAN
CHATTERJEE, M.A., B.L.

*Candidates are required to give their answers in their own words
as far as practicable.*

Candidates are required to answer ANY FIVE questions.

All the questions are of equal value.

1. What are the principal titles of law or topics of litigation according to Manu; and what was the Constitution of a Court of Justice according to Manu and Yajñavalkya?

State the provisions contained in the Institutes of Manu with respect to the following matters:—

(i) Limitation; (ii) Interest on money lent; (iii) Void Contracts; (iv) Right of private defence.

2. Discuss the principles upon which the order of succession is worked out in the Mitakshara and the Dayabhaga.

What is the difference in the meaning of the terms 'Sapinda,' 'Daya' and 'Partition' as used in the Mitakshara, and the Dayabhaga?

3. How is the doctrine of self-acquisition by a member of a joint Hindu family stated by Yajñavalkya?

Discuss the rights of a member of a joint Hindu family to properties acquired by him after having been educated at the family expense, with illustrations from decided cases.

4. State the order of succession to the Stridhan property of a maiden, and the text upon which it is founded.

A maiden dies leaving a sister's son and a father's brother's son. Who is the preferable heir? State your reasons.

Discuss briefly the half-brother's position in the order of succession to Stridhan property according to the Bengal and Benares Schools.

5. Discuss the proposition "under the Hindu Law clear proof of usage will outweigh the written text of the law," with reference to family customs, local customs and immoral customs.

6. State the texts of Vasistha and Katyayana relating to the share which an adopted son is entitled to get when a son is born to the adopter after the adoption. What conclusions have been drawn therefrom as to the shares of the adopted son and the after-born son by different commentators?

7. Discuss the liability of a son in a Mitakshara joint family for the debts of his father charged upon ancestral property, with illustrations from leading cases on the point.

8. Describe the nature of an impartible estate. Can such an estate belong to a joint family governed by the Mitakshara ?

Discuss the law relating to alienation of an impartible estate, and its liability for the debts of the deceased holder in the hands of the successor.

9. Discuss the powers of a trustee of a religious endowment under the Hindu Law as regards management and alienation of the trust property.

What are the rules governing the devolution of the trust on the death of a trustee ?

10. Write a short essay on the power of testamentary disposition in Hindu Law.

JURISPRUDENCE.

Examiner—DR. S. C. BAGCHI, B.A., LL.B., LL.D.

The same value is attached to each question.

Only THREE questions are to be attempted.

1. "Law is not a museum of art, but a representation of life." — *Savilelles*. Discuss the bearing of this remark on the relation of Jurisprudence to Sociology.

2. "Law is a group of precepts recognized by all the members of society as necessary for regulating their mutual intercourse and maintained by the social power by way of a sanction."—*Gaston May*. How far is this definition of Law compatible with any other definition of Law familiar to you ?

3. Give some account of the Reception of Roman Law in Germany at the end of the 14th century. How did the administration of justice under the Teutonic folklaws differ from the system now obtaining in Germany ?

4. Discuss shortly the important modern theories of criminal liability. Can you suggest any improvement on any part of the Indian Penal Code ?

5. It has been remarked by an eminent jurist that the codification of the private law into a Civil Code is the most difficult task for a legislator. Why ? Give an instance where such a codification has well nigh been a failure.

6. Write an Essay on one of the following :—

(a) Science and technics in private law.

(b) The irreducible "droit naturel."

(c) "Grau, theurer, Freund, ist alle Theorie,

Und grün des Lebens goldner Baum."—*Goethe*.

[Gray, my dear friend, is all theory, and green life's golden tree.] How far does this apply to Jurisprudence ?

ROMAN LAW.

Examiner—HON'BLE SIR ASUTOSH MOOKERJEE, K.T., C.S.I.,
M.A., D.L., D.Sc., PH.D.

Candidates are required to give their answers in their own words as far as practicable, and are permitted to attempt FIVE questions only.

1. Explain the provisions in the Twelve Tables relative to the acquisition of ownership by Usucapio. Explain the application of these provisions in the development of Roman Law.
2. At what periods and in what respects may Christianity be regarded as having influence on the development of the Roman Law up till the death of Justinian?
3. (a) "Gaius' subject does not in the least resemble the Law of Persons as conceived by Austin."
(b) "The first book of the Institutes of Justinian following Gaius, treats of the law relative to status or conditions under the name *de jure personarum*." Discuss these statements.
4. Give a brief historical survey of Roman Municipal Legislation.
5. In what Roman transactions were witnesses required by Law? What do you consider to have been (1) the function of these witnesses. (2) the reasons for requiring witnesses in these cases and not in others?
6. On what principles would you determine whether, of two articles united, one was an accessory, for the purpose of the law of Accessio?
7. A, heir to an Artificer, finds in the warehouse an ivory casket of costly materials which he thinks to be his as heir, but which belong in fact to different customers. He repairs the casket with the materials. What is the resulting legal position, as to property and rights of compensation?
8. "The *Fidei commissarius heres* became a true universal successor, and therefore, like the *honorum possessor*, to all intents and purposes an heir. This result, however, was not finally attained until the time of Justinian." Give an historical account of the means whereby this result was attained.
9. "The procedure by Sponsion must be regarded as the bridge between the sacramental process and the petitory vindication." Explain.
10. Outline the history of (1) the form, (2) the content, of Stipulatio.
11. Describe the elements of permanent value in judicial procedure which we owe to the Romans.

PRIVATE INTERNATIONAL LAW.

Examiner—A. E. BROWN, ESQ., M.A., LL.B.

Candidates to attempt only SIX questions, of which three must be taken from Section A and three from Section B. Wherever necessary they are expected to quote, critically analyse and carefully differentiate ruling cases.

SECTION A.

1. The X Company is registered and carries on business in Natal. In 1916 the Y Bank, which is domiciled in Natal, takes from it a debenture for £20,000, and the payment of the debenture is made a first charge

on the uncalled capital of the company. No notice of this is given to the shareholders. In 1917 the Z Company, which is Scotch by registration and business, sues the X Company in Scotland. At the same time it issues a Scotch process called "arrestment" against numerous shareholders of the X Company who are resident in Scotland, the effect of which is that the calls payable by them to the X Company are arrested and the Z Company becomes a secured creditor on the funds so arrested for the damages it may subsequently establish its claim to in the action. The Z Company obtains damages in a Scotch Court, but before it realises anything the X Company is wound up. By the law of Natal the Y Bank has priority over all other creditors in respect of the uncalled capital, but by Scotch law the Z Company has priority with regard to calls on the Scotch shareholders because the shareholders had had no notice of the charge effected by the debenture in favour of the Y Bank.

Discuss this case.

2. M, a domiciled subject of Portugal, is employed in travelling over Europe as an agent for a Portuguese firm. He marries in Spain P, an Englishwoman, and subsequently takes a house for her in England so that she may reside there during his absences on business. He never resides in England himself. P submits a petition to an English court for judicial separation on the ground of cruelty committed by M in Portugal.

Discuss the question of the court's jurisdiction.

3. X and Y are both domiciled and resident in England. In 1912 X gives Y in London an equitable charge on his landed property in British Columbia to secure various advances made by Y, and he agrees to execute a legal mortgage. By the *lex situs* the land in question is not legally affected by the equitable charge and X never executes the legal mortgage. X dies insolvent and Y asks Z, who is X's legal personal representative, to execute a mortgage which will be valid by the *lex situs*.

Advise Z as to whether an English court will compel him to do this.

4. A, a domiciled Englishman, contracts a debt in England to X, a domiciled Mexican. X dies leaving property both in Mexico and England. Y takes out a grant of administration in England and Z is given an equivalent position in Mexico. A is travelling in Mexico at this time and Z demands payment of the debt, threatening legal proceedings in default of payment. A pays, but on his return to England Y demands payment.

Advise A.

5. A, a domiciled Englishman, by a will made in England leaves a legacy to "the next of kin" of B, a domiciled Roumanian. B has a half-sister C and a nephew D, the son of a dead sister of the whole blood. C however is illegitimate by English law although legitimate by Roumanian. In English law the half blood of a nearer degree. But in Roumanian law the more remote whole blood exclude the nearer half blood.

State your opinion as to who is the rightful claimant to the legacy.

6. In 1895 A, who is a British subject by birth with a domicile of origin in England, takes up his permanent residence in Egypt. In 1905 he marries B, an Egyptian Christian at Alexandria, according to the rites of the Orthodox Church. In 1910 he describes himself in his will as "a merchant, a British-born subject, having a domicile in Egypt." In 1914 Egypt ceases to be under the suzerainty of Turkey and becomes a British Protectorate. In 1917 B consults you as to whether she can bring a petition for a divorce from A in an English court. Advise her.

SECTION B.

7. "We have an English lawgiver fixing the age (of majority) at twenty-one and adhering to the old view that his authority over personal status depends on the English domicile of the persons to be affected, and an Italian lawgiver fixing the age at nineteen and adopting the new view that his authority over personal status depends on the Italian nationality of the persons to be affected. If one who is politically an Englishman is domiciled in Italy and makes his will and dies there at the age of twenty, neither the English nor the Italian lawgiver has claimed authority to determine his majority. What, then, shall be done?"

An English judge . . . seized of the affair will understand that the conflict of rules of private international law has had for its consequence that they lead to no result in the case before him. He will be thrown back upon an examination of the meaning of principle of domicile. He will find that that principle is the expression of the view that the world is divided for purposes of private law into civil societies based on domicile He will further find that the law of Italy amounts to saying that no civil society based on domicile exists in that country, and he will finally consider that domicile is eliminated from the case and that there is no reason for holding the political Englishman to have attained his majority sooner than he would have attained it in his own country." [Westlake].

Comment from the point of view of other possible opinions and a critical examination of decided cases.

8. "In divorce proceedings the jurisdiction of the court is very different in the two cases of the suit against the consort and the suit against the co-respondent." [Baty]. Comment.

9. The essential validity of a contract is to be tested in the main by the law of the place of performance [*lex loci solutionis*] though it may occasionally depend also upon the law of the place where the contract is made (*lex loci celebrationis*): in any case it does not depend upon the intention of the parties." Dicey, quoting the above theory, says:—"The theory is it is submitted inconsistent with recent decisions of English courts." Comment.

10. "This company I think may properly be deemed both Scotch and English. It may for the purposes of jurisdiction be deemed to have two domicils." (*From dissenting judgment of Lord St. Leonards in Carron Iron Co. v. Maclaren*).

State your opinion as to the support given to this view, of the possibility of a company having two domicils, by decided cases.

11. Write notes on the contributions of any two of the following to the theory of Private International Law:—

(a) Bartolus, (b) d'Argentre, (c) Savigny.

12. Westlake writing in 1858 says:—"The English law must on principle be taken as excluding in the case of transactions having their seat here not only a foreign age of majority but also all foreign determinations of status or capacity, whether made by law or by judicial act."

Discuss the extent (if any) to which this principle has since been modified by judicial decisions.

EQUITY.

Examiner—HON'BLE DR. TEJ BAHADUR SAPRU, M.A., LL.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Only FIVE questions should be answered. In these five you are requested to include No. 2 and No. 4.

1. Write a historical note on the origin of the office of the Chancellor and the development of his jurisdiction. 20
 2. Show that the history of the rule relating to precatory trusts has been similar to that of the Roman *fidei commissa*, and discuss the present condition of the Law with special reference to the cases of *Mussoorie Bank v. Raynor* and *Conisky v. Bowring-Hanbury*. 20
 3. (a) 'A mere agreement between A and B that B shall pay C (who is no party to it directly or indirectly) will not prevent A and B from coming to a new agreement the next day releasing the old one'—per Jessel M.R. Discuss this with special reference to cases in which an attempt is made to read a trust in favour of strangers to an agreement. Refer to leading English and Indian cases on the subject. 10
 - (b) A solicitor who was the trustee of a fund fraudulently misappropriated it and with it bought an estate which he then conveyed to a relative. The relative then mortgaged the property, the solicitor trustee acting in the course of the mortgage transaction as the common solicitor for mortgagor and mortgagee. The beneficiaries claimed to follow their trust-money into the property which had been bought with it and urged that notice must be imputed to the mortgagee as the solicitor knew of the breach of trust. Discuss the nature and limits of the equity existing in the case, if at all, between the beneficiaries and the mortgagee. 10
 4. (a) "Upon the whole, equity never attempts to compel strict performance of affirmative contracts, but contents itself with compelling reparation for breaches of them." 10
 - (b) "Equity takes its stand in effect upon the construction of Justinian, by giving the Executor his choice between accounting for the testator's personal estate on the one hand and paying the testator's debts out of his own pocket, on the other." 10
- Develop these propositions of Professor Langdell, and explain and illustrate them.
5. "The better view seems to be that want of mutuality to be fatal to a claim for specific performance must exist at the time the action is brought." Discuss and criticise this statement, explaining the nature and the limits of the rule of mutuality. 20
 6. (a) Explain the doctrine of Part-performance and refer to any leading English and Indian cases that you know. 10
 - (b) Will the doctrine of Part-performance apply to a document embodying a family arrangement which is unregistered but which should have been registered? 10
 7. "It has sometimes been made a question whether Courts of Equity have authority to stay proceedings in the Courts of foreign countries" (*Story*). Discuss this question, indicating clearly the limits of the Jurisdiction of Courts of Equity. Refer to leading authorities. 20

8. Subject to what conditions will a Court of Equity restrain 20
(a) the publication of libellous matter and (b) the publication of private literary letters?

9. State briefly the leading facts of any two of the following cases, 20
and also explain the rule of law for which each one of those two cases is an authority :—

(a) *Stapilton v. Stapilton.*

(b) *Chesterfield v. Janssen.*

(c) *Dering v. Earl of Winchelsea.*

(d) *Speight v. Gaunt.*

(e) *Ackroyd v. Smithson.*

(f) *Attorney-General v. The Ironmongers Company.*

LAW RELATING TO THE TRANSFER OF IMMOVABLE PROPERTY AND LAW OF PRESCRIPTION.

Examiner—HON'BLE SIR ASUTOSH MOOKERJEE, K.T., C.S.I.,
M.A., D.L., PH.D.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

*Of the fifteen following questions which carry equal marks, only FIVE
are required to be answered, namely, one from each of the five groups,
A, B, C, D and E.*

GROUP A.

1. (a) Set forth under methodically arranged heads the substance 20
of the general provisions in Chapter II of the Transfer of Property Act limiting the power of the transferor to restrict the mode of enjoyment of, and to create successive vested or contingent interests in, the property transferred; and refer to any cases you remember, to show that most of the provisions of Chapter II only declare as law what had been followed before as principles of justice, equity, and good conscience.

(b) Write short notes on the doctrines of Election, Apportionment, and *Lis pendens*.

7. (a) A British poet has pathetically sung—

“The toils of law what dark insidious men
Have cumbrous added to perplex the truth,
And lengthen simple justice into trade,
How glorious were the day that saw these broke.”

Discuss how far this poetic indictment is just as against the niceties of the law of constructive notice, and how far the Conveyancing Act of 1882 in England, and the Transfer of Property Act in India, can be said to have brought on the poet's 'glorious' day.

(b) Give any classification you consider convenient, if not strictly logical, of the different descriptions of cases of constructive notice, placing under proper heads the cases of *Jones v. Smith*, *Kennedy v. Green*, *Agra Bank v. Barry*, and *Mohori v. Dharmdas*.

3. (a) Compare the provisions of the English law relating to Fraudulent Conveyances under the Elizabethan Statutes and the Voluntary Conveyances Act of 1893, with those of Section 53 of the Transfer of Property Act relating to Fraudulent Transfers. 20

(b) A, after having in answer to an application by his creditor B said in court that he did not intend to transfer any of his properties, transferred some of his properties for valuable consideration to C, and some other properties without consideration on the same day to D. B subsequently obtained a decree against A.

Were the transfer to C and D valid or void as against B? State fully the reasons for your answer.

GROUP B.

4. (a) Speaking of codification in India, Macaulay said, "Our principle is simply this—uniformity, when you can have it, diversity, you must have it, but in all cases, certainty." 20

Discuss how far the Transfer of Property Act has succeeded or failed to satisfy that principle by securing certainty in the provisions relating to forms and formalities for sale of immovable property in Section 54.

(b) How would you modify Section 54 or the Interpretation clause of the Act to remove the uncertainty that exists?

5. Discuss the law relating to covenant for title and for quiet enjoyment, with special reference to the following points, namely, 20

(i) when is the right to sue on the covenant acquired?

(ii) how may the right be lost? and,

(iii) what are the remedies for breach of the covenant?

6. (a) State the law relating to the seller's charge for unpaid purchase money as enacted by the Transfer of Property Act, and compare it with the English law relating to the vendor's lien for unpaid purchase money. 20

(b) When is the charge or lien acquired, how and against whom may it be enforced, and how is it lost?

GROUP C.

7. (a) Describe the different kinds of mortgage provided for in the Transfer of Property Act, pointing out their distinction from one another. 20

(b) Explain fully how you would distinguish a mortgage by conditional sale from a sale with a condition for re-purchase, and a usufructuary mortgage from a lease.

8. (a) Discuss the origin and development of the mortgagor's right of redemption in England and in India, referring in their proper places to the cases of *Vernon v. Bethill*, *Seton v. Slade*, *Pattabheramiar v. Naikim*, and *Thumbusawmy v. Hossain*. 20

(b) Formulate what may be called the rule against clogging redemption. Does it preclude purchase of the equity of redemption by the mortgagee?

9. Discuss fully the principles of Marshalling and Contribution. 20

GROUP D.

10. (a) Distinguish an Easement from a Natural Right and a Licence. 20

(b) Discuss the questions (i) whether it is essential that an easement must be beneficial to the occupation of the dominant tenement, and (ii) whether there can be an easement for the benefit of the servient tenement.

11. (a) State the modes of acquisition of an easement, and give the reason why the presumption of a grant is considered necessary for the origin of an easement. 20

(b) Discuss the question whether grant of reservation of an easement may be presumed on the severance of tenements, commenting on *Pycr v. Carter*, and *Suffield v. Brown*.

12. (a) Discuss the nature of the right to the support for buildings from adjacent land. 20

(b) What are the rights and remedies of a resident riparian proprietor of land on the bank of the Hughli, to prevent pollution of the water of the river by mill-owners and others carrying on lawful trades?

GROUP E.

13. Write an essay on "The Classification of Property and its significance in English and in Indian law." 20

14. Write an essay on "The Benami System of holding Property in India." 20

15. Write an essay on "The Ethical Foundation of the Law of Easements." 20

LAW RELATING TO WILLS.

Examiner—SIR B. C. MITTER, KT., *Bar.-at-Law*.

Candidates are required to give their answers in their own words as far as practicable.

All answers must be supported by reasons and citation of authorities.

The questions are of equal value.

Candidates are required to answer Questions 5 and 6 or 7, and any three other questions.

1. (a) Will is said "to speak from the death of the testator." Discuss this statement fully, pointing out its limitation. How does this rule apply to powers of appointment, general and special, vested in the testator?

(b) Testator states: "I bequeath my new 3½ p.c. stocks to A." Testator had 50 such stocks at the time of the execution of the will. He afterwards acquires 50 more of such stocks. Discuss what stocks pass under the above bequest.

(c) Does a general devise "to A his heirs and assigns to and for his and their own use and benefit" pass trust and mortgage estates?

2. (a) Has the word "money" in a will ever been held to comprise the whole residuary personal estate of the testator including his furniture, horses, carriages and articles of like nature?

(b) Testator bequeaths all his "ready money" to A. Does A get (1) cash standing to the credit of the testator at his banks, (2) money kept in deposit with his bankers repayable on a week's notice?

(c) Testator bequeaths all his "cash money" to A. Does A get rents, bond debts and mortgage debts due to the testator at the time of his death?

(d) Does the bequest of the testator's "money" or monies *prima facie* include (1) stock in the public funds, (2) money on deposit account with the bankers?

3. Are trusts for accumulation of income valid under (a) English Law, (b) Hindu Law?

Discuss 3(a) briefly but 3(b) fully.

4. What is meant by a gift to "a class"?

A Hindu testator before the year 1915 executes a will and makes a bequest of an estate for life to his son and the remainder to his grandsons, some of whom are born before his death, and others are born during his son's lifetime but after his death. Discuss which of the grandsons will take the estate in remainder.

N.B.—The candidate is requested to refer fully to the Indian authorities bearing on this question.

5. (a) What powers and obligations have an executor to carry on the business of the testator?

(b) What are the rights of the creditors of the business carried on by the executor against (1) the executor and the estate of the testator? (2) In what way are such rights to be enforced against the estate of the testator? (3) Can such creditors prove their debts in an administrative action, against the estate of the testator, instituted by the testator's creditors?

(c) Discuss—

(1) *Dowse v. Gorton*.

(2) *Farhall v. Farhall*: and other cases of the above types.

6. Discuss the effect of revocation of Probate and Letters of Administration on the rights of persons who have dealt with such executors and administrators in good faith before revocation.

7. (a) Discuss the rule in "Wild's Case."

(b) What effect has the passing of the preliminary decree in an administrative action instituted by creditors on the powers of executors and administrators?

8. Discuss the principal Indian cases on the subject of executory devises both before and after the passing of the Hindu Wills Act, and state briefly the present Hindu Law on this subject.

9. Discuss the subject of "conditions subsequent" attached to a bequest with special reference to (a) conditions not to dispute the will, (b) conditions in restraint of marriage, (c) conditions of residence, (d) conditions as to names and arms clauses.

10. (a) Discuss the nature of interests liable to be affected by the rule against perpetuities, mentioning those which are not so affected.

(b) Does it apply to personal contracts, restrictive covenants and renewals of leases?

(c) Is the rule against perpetuities recognised by the Mahomedan or Hindu Law, and if so to what extent?

REAL AND PERSONAL PROPERTY.

Examiner—HON'BLE MR. JUSTICE W. E. GREAVES, M.A.

Not more than FIVE questions are to be answered, three of which must be from Part I and two of which must be from Part II.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

PART I.

1. What different kinds of Estates Tail are there? Give examples. How can an Estate Tail be put an end to at the present time, and by whom can this be done? What do you mean by a Base Fee? 20

2. (a) "Every contingent remainder of an estate of Freehold must have a particular estate of Freehold to support it." 20

Explain what is meant by a Contingent Remainder, giving an example; and also give an example of a contingent remainder which is bad as not being in accordance with the above rule. What was the origin of the rule?

(b) "Every contingent remainder must vest during 'the continuance of the particular estate which supports it.'"

Illustrate this by an example. Can you prevent the operation of this rule upon the failure of the particular estate which supports the contingent remainder, and if so how?

3. What is the rule against perpetuities? Illustrate the rule by examples of cases which conform to it and which contravene it. 20

What is the law with regard to accumulations?

4. What is the Statute of Uses? Discuss its effect, and show how the object for which it was enacted was defeated. How is it now utilised in modern conveyancing? 20

5. John Brown has an estate in fee simple in Blackacre worth 20 lacs and also 20 lacs invested in War Loan and a large amount of valuable Silver Plate and Pictures. He has a wife and three sons and two daughters. He wants to settle Blackacre so as to keep it in his family but he wants to provide thereout an annuity of Rs. 12,000 for his widow. How does he do all this? He wants to make the Silver Plate and Pictures descend as heirlooms with Blackacre. Can he do this, and if so to what extent? He wants to leave the 20 lacs of War Loan amongst all his children equally, and after their respective deaths he wants their shares to go to their children as his sons and daughters wish. How can he do this? Sketch out a form of settlement to carry all this into effect. 20

PART II.

1. What are the various steps necessary under English Bankruptcy Law before a man can be adjudicated a Bankrupt? What are the effects of such steps upon the debtor's property and his powers of disposition over it? 20

2. Explain the following expressions, giving examples to illustrate your answers:—

(1) Bailment, (2) The executor's right to prefer and his right to retain, (3) *Mobilia sequuntur personam*, (4) chose in action, what different kinds are there? (5) negotiable instruments, (6) Bill of Exchange.

3. (a) How do you form a Joint Stock Company under the English Companies Acts? 20

(b) Explain how such a company can be wound up. What are the three kinds of winding up, and when are they employed?

(c) Explain—(1) Floating Charge, (2) Reduction of Capital and how it is effected, (3) *Ultra vires* of the Company, (4) Special Resolution, (5) Memorandum of Association and what it contains, (6) Private Company.

4. Explain the following expressions:—

20

(1) Once a mortgage always a mortgage, (2) Tacking, (3) Consolidation, (4) Marshalling, (5) Clog on the equity of redemption.

EVIDENCE.

Examiner—DR. J. C. WEIRE, B.A., LL.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. "Hearsay, then, is admissible when it is part of the transaction of the *res gestae*. The question is, not whether what was said is true, but whether it was said" (*Phillimore*). Define the meaning of the term "hearsay" and discuss the question whether a statement forming part of the *res gestae* is ever admissible as proof of the facts asserted in the statement. Is there any provision in the Indian Evidence Act which renders this question less important in India than in England? 20

2. (a) Describe the service rendered by Lord Mansfield in developing the law of evidence in England. 15

Or,

(b) Discuss the fairness of *Phillimore's* attack on the Judges of the Courts of Common Law in England.

Or,

(c) Describe the mode of controlling the jury and correcting their errors under early English Law, and point out its defects.

3. (a) "The burden of proof and the weight of evidence are two very different things." Explain and illustrate this proposition. 20

Or,

(b) "Discuss the question how far declarations of a testator are admissible on questions concerning the validity or the interpretation of his Will.

4. (a) Illustrate "the infirmative hypotheses affecting real evidence" (*Best*). 15

Or,

(b) Write a note on any one of the following presumptions:—
The presumption of death after seven years' absence: the presumption in favour of innocence: the presumption in disfavour of a spoliator.

5. (a) Examine the "probative value of similar offences or acts" 15
(i.e. similar to that which is the subject of a criminal charge) when "offered for the purpose of showing knowledge, intent or design" on the part of the accused (*Wigmore*).

Or,

(b) Contrast the values of "self-contradiction" and contradiction by other witnesses for the purpose of discrediting a witness.

Or,

(c) Point out the weakness in the prosecution's case either in (i) John Donellan's Case or in (ii) the Durrant Case.

6. (a) Discuss the question whether an accused ought to be allowed 15
to give evidence on his own behalf; and, if so, whether he ought to be treated in all respects like an ordinary witness.

Or,

(b) Examine the reasons usually assigned for the rule that a party may not discredit his own witness by attacking the latter's character.

Or,

(c) Discuss the arguments for and against the rule in *Regina v. Rowton* (where a witness, a former pupil of the accused, who was called to give evidence to rebut evidence of the accused's good character, stated that, when a boy he had known the accused and that in the opinion of the witness and of the witness' brothers the accused was a man "capable of the grossest indecency and the most flagrant immorality"; and this evidence was declared inadmissible).

